REVISION HISTORY

KL QB7M db kr j _bop d omdb fl r p db fpfl kp j afdbood j m db kr j _bop fk qeb r odbkq bopfl k+

Ob fpfl k . +7Mdar qfl k+

Ob fpfl k . +7Rma dp FBK E fk B ka p pdpj RSI L i r i qfl k d oj r i _ BK mfk dopfpd oaf fabo+

Ob fpfl k . +7Rma dp ABSF B L OABO FKOL OJ QFL K+

Ob fpfl k . +07Rma dp QEBOJ I FKOL OJ QFL K ka Cfdr db / 2+

DEVICE ORDER INFORMATION

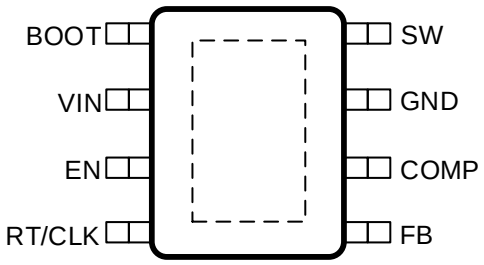
25'(5$%/('(9,&(	3$&.$*,1* 7<3(	67$1'$5' 3$&. 47<	3$&.$*(0$5.,1*	3,16	3$&.$*('(6&5,37,21
P Q/32-PQBO	Q mb Obbi	1---	/32-	5	BPL M*5I

ABSOLUTE MAXIMUM RATINGS

L bol mbo qfkd obb* fodpj mbo qr db r kibppl qebo fpb kl dpa%&

'(6&5,37,21	0,1	0$;	81,7
SFK)BK	*-+0	32	S
LLQ	*-+0	4.	S
PT	*.	32	S
LLQ*PT	*-+0	3	S
LJM)C)OQ, IH	*-+0	3	S
L mbo qfkd gr k qfl k dpj mbo qr db QG%&	*1-	.2-	
Pq o db dpj mbo qr db QPQD	*32	.2-	

PIN CONFIGURATION



)LJXUH /HDG 3OD6V2V8LF

(1) Pqbppbp _b l ka qelpb ifpdpa r kabo _plir dp J fj r j O qfkd j rpb ab f b mbo j kbkqa j db+Qeb ab f b fp kl qdr o kdpba q cr k qfl k l r qpfab l cfqp Ob l j j bkaba L mbo qfl k l kafqfl kp+

(2) Qeb F fk ir abp l bodpj mbo qr db md dp qfl k q md dp qqebab f b ar dkd l boil a l kafqfl kp+Gr k qfl k dpj mbo qr db fii b bba . 2- ebk l bodpj mbo qr db md dp qfl k fp qf b+ l kdkr l r p l mbo qfl k _l b qebpmb fdba j fj r j l mbo qfkd gr k qfl k dpj mbo qr db fii dbar b ifdbqfj b+

PIN FUNCTIONS

DKA	4	Ddrka
PT	5	Obdri qlop fqefkd lrqmrq+ lkkb qPT q k b qpdk imi bofkar qlo
Qebqj i Ma	6	Eb qafppfm qf k m qe lcafb+Bib qpf ii lkkb qf k q DKA mfk+Jrpq_b lkkb qpa q ddrka mi kb lk M d omd mbol mbo qf k ka lmqfj f ba qebqj imbod qj k b+

RECOMMENDED OPERATING CONDITIONS

L bol mbo qfkd odbb* fodpj mbo qrdb o kdb r kibppl qebo fpb kl dpa

3\$5\$0(7(5	'(),1,7,21	0,1	0\$;	81,7
S_{FK}	Fkmrq liq db o kdb	1-2	3-	S
S_{LRQ}	L rqmrq liq db o kdb	--5	24	S
Q_G	L mbo qfkd gr k qf k qpj mbo qrdb	*1-	.2-	

ESD RATINGS

3\$5\$0(7(5	'(),1,7,21	0,1	0\$;	81,7
S_{BPA}	Erj k la JIabi%&: J &)mbo KPF*GBAB *GP*--.*/-.1 pmb fcf qf k) ii mfkp%&			

f M k)

ELECTRICAL CHARACTERISTICS

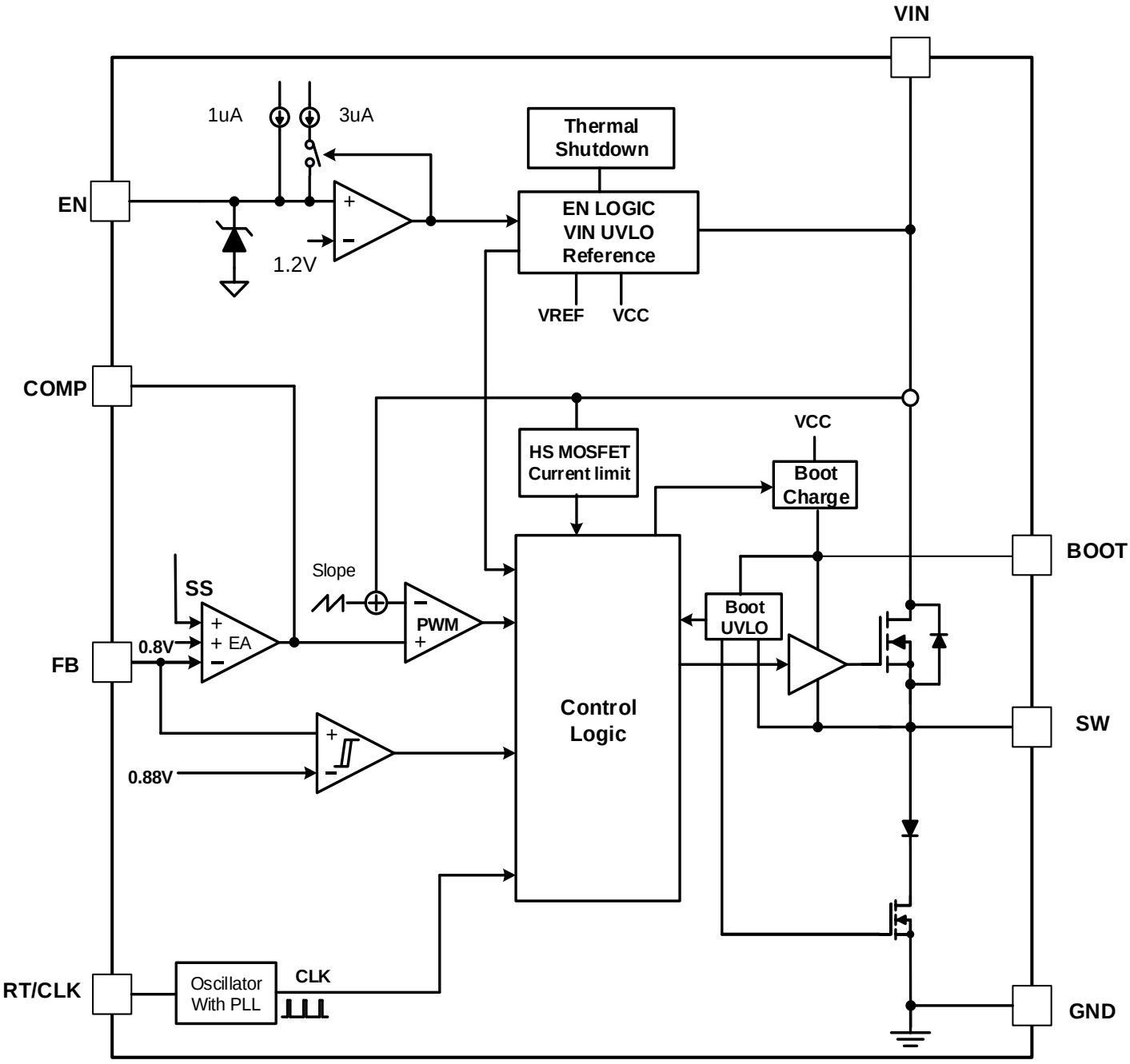
S$PK: /1S)QG: *1- ./2)qmf i irb fpdppdpa r kabo/2 +

6<0%2	3$5$0(7(5	7(67 &21',7,21	0,1 7<3 0$;	81,7

3RZHU 6XSSO\

S$PK	Lmbo qfkd fkmrq l iq db	1-2	3-	S

FUNCTIONAL BLOCK DIAGRAM



Cfdr do 5+Cr k qf k i il h Af do j

OPERATION

2YHUYLHZ

Qeb P Q/32- fp 1+2S*3-S fkmrq)2 lrqmrq)_r h lk bobpo fqe fkqbdo qba 5-j Oaplk efde*pfab ml boJLPCBQ+ Fqfj mibj bkqp lkpq kqqbonrbk mb h rodbkqj lab lkqolid bodri qlrqmrq liq db)mol fafkd b biibkqifkb ka il a qp kpfbkqbopml kpb ka pfj mifc fkd qeb b qbok i ilIm l j mbkp qfl k abpfdk+

Qeb p fqefkd odonrbk fp mol do j j _ib od j .--hE q .+/JE fqe q l pbqqfkd j l abp)qbpfq qpbqqfkd odonrbk j lab ka qeb il h p k eol kf qfl k j l ab)q l mqfj f bp bfqebo qeb ml bo bqcfbk l o qeb b qbok i l j ml kbkqp pf bp+Qeb P Q/32- do qr qbp k fkqbok i 1j p pl oq*pq oq qfj b q l fa i odb fkorpe rodbkq ka lrqmrq liq db l bopel lq arofkd pq oqrm+Qeb ab f b ipl prmmlqp j lkl ifqef pq oqrm fqe mob*_f pba lrqmrq l ka fqfl k+Qeb pb j ibpp j l ab*qp kpfqfl k _bq bbk MT J j l ab ka MPJ j l ab l mbo qfl kp bkprob efde bcf fbk l bo fab il a rodbkq o kdb+Qeb nrfbp bkq rodbkq fp q mf ii .42r rkabokl il a lopibbm j l ab l ka fqfl k q efb b efde bcf fbk qifdeqil a+

Qeb P Q/32- e p abc riq fkmrq pq oq*rm liq db lc1+/S fqe 0/-j S e pqbobpfp+Qeb BK mfk fp efde* liq db mfk fqe mob fpfl k qebopel ia qe q k _b rpba q agrpq qeb fkmrq liq db il hlrq qebopel iap fqe q l b qbok i obpfpqlo q j bbq ro qp efdebo RSIL p pqbj odonrfobj bkqp+Cil qfkd BK mfk bk _ibp qeb ab f b fqe qeb fkqbok i mrii*rm rodbkqq qeb mfk+ lkkb qfkd BK mfk q SFK afdo qi pq oqp rm qeb ab f b rq j qf ii+

Qeb P Q/32- qrii mol qbp qfl k do qr qbp fk irab qeb fkmrq rkabo* liq db il hlrq)qeb lrqmrq l bo* liq db mol qbp qfl k) l bo rodbkq mol qbp qfl k fqe ib*_* ib rodbkq ifj fqfkd)lrqmrq e oapel oq mol qbp qfl k ka qebo j iperqal k mol qbp qfl k+

3HD&XUUHQW&RQWURO

Qeb P Q/32- bj mil p of ba odonrbk mb h rodbkq j lab lkqoli+ k fkqbok i il h fkqf qbp qr ok fkd lk qeb fkqbdo qba efde*pfab ml boJLPCBQN.fk b e ib)qebk fkar q o rodbkqqfbpifkb oi +T ebk qeb rodbkq qeo rde efde*pfab JLPCBQ do ebp qeb qebopel ia ib bipbq_ qeb LJM liq db lc qeb fkqbok i bool o j mifcfbo)qeb fkqbdo qba efde*pfab JLPCBQ fp qr okba lcc+

Qeb bool o j mifcfbopbo bp qeb LJM kl ab _ l j m ofkd qeb liq db lc qeb C mfk fqe k fkqbok i -+5S obcbobk b liq db+T ebk qeb il a rodbkq fk do pbp) dbar qfl k fk qeb doba_ h liq db doi qf b q qeb dododbk b o fpbp LJM liq db qfi qeb bo db fkar q o rodbkq j q ebp qeb fk do pba il a rodbkq+Qefp doba_ h il lm bii odri qbp qeb lrqmrq liq db q qeb dododbk b+Qeb ab f b ipl fkqbdo qbp k fkqbok i ipil mb l j mbkp qfl k for fqp q mob bkqpr_* e oj lkf lp fii qfl k ebk arq ib fp doo qbo qe k 2- d o of ba odonrbk mb h rodbkq j lab lkqoli+

Qeb P Q/32- l mbo qbp fk Mripb Phfmmfkd J l ab %MPJ& fqe ifdeqil a rodbkq fj mol b bcf fbk +T ebk qeb il a rodbkq ab do pbp) k fk obj bkq fk qeb doba_ h liq db ib ap LJM liq db ad mr+T ebk LJM c iip q il i j m qebopel ia %4-j S q mf ii &)ab f b bkqbop MPJ+Qeb lrqmrq liq db ab p arb q lrqmrq m fqo afp e odfkd arofkd phfmmfkd mbofl a+Lk b C liq db ad mp il boqe k qeb dododbk b liq db) ka qeb LJM liq db qfpbp _l b il i j m qebopel ia+Qebk efde*pfab ml bo JLPCBQ qr okp lk fk kb q il h mripb+ qbo pb bo i p fqefkd ibp fqe q mf i/--j mb h fkar q o rodbkq) LJM liq db ad mp ka fp i j mba d fk ka mripb phfmmfkd j l ab dombo qp fc qeb lrqmrq lkqfkrbp ifdeqil aba+

Qefp lkqol i p ebj b ebimp efb fkd efdebo bcf fbk _ phfmmfkd ibp q dbar b p fqefkd ml boil pp ka d qb ad f b e odfkd il pp+Qeb lkqol iibo lkpr j mqfl k nrfbp bkq rodbkq fp .42r arofkd phfmmfkd mbofl a fqe kl p fqefkd q fj mol b bcf fbk qr qebo+

(QDEOH8QGHUYROWDJHORFNRXW7KUHVKROG

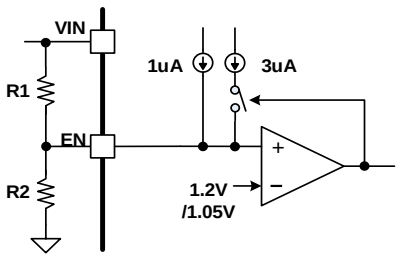
Qeb P Q/32- fp bk _iba ebk qeb SFK mfk liq db qfpbp _l b 1+/S ka qeb BK mfk liq db b bbap qeb bk _ib qebopel ia lc.+/S+Qeb ab f b fp afp _iba ebk qeb SFK mfk liq db c iip _bil 0+6S l o ebk qeb BK mfk liq db fp _bil .+2S+ k fkqbok i .r mrii*rm rodbkq pl ro b q BK mfk iil p qeb ab f b bk _ib ebk BK mfk dil qp+

BK mfk fp efde liq db mfk qe q k _b lkkb qba q SFK afdo qi q pq oq rm qeb ab f b+

Cl o efdebo pqpj RSIL qebopel ia) lkkb q 1W bh qp qeo e odfkd

%&

%&



ebdo

- Sqpb fp opfkd qepdopel ia l cSfk RSI L
- Sc ii fp c iifkd qepdopel ia l cSfk RSI L

Cfdr do 6+P pdpj RSI L _ bk _ib af fab

2 X W S X W 9 R O W D J H

Qeb P Q/32- dodri dpp qeb fkdpdk i dodbdbk b liq db q-+5S fqe ±. qibo k b l boqeb l mbo qfkd dpj mbo q do ka liq db o kdb+Qeb l rqmrq liq db fp pbq_ dopfpdq o af fabo cdj qeb l rqmrq klab q qeb C mfk+Fq fp do l j j bkaba q rpb . qibo k b l o_bqpdodopfpdq qp+Rpb Bnr qfk 0 q i ri dp dopfpq k b l c dopfpdq oaf fabqp+ Q fj mdl b bcof fbk qifdeqil ap) i odbo irb dopfpdq qp do do l j j bkaba+El b bq) fc qeb irbp do q l efde) qeb dodri q o fii_b j l do prp bmqf_ib q kl fpb odb qfkd l rqmrq liq db ro +

%0&

ebdo

- Oc QLM fp qeb dopfpdq o l kkb qfkd qeb l rqmrqd qeb C mfk+
- Oc LQ fp qeb dopfpdq o l kkb qfkd qeb C mfk q qeb ddo r ka+

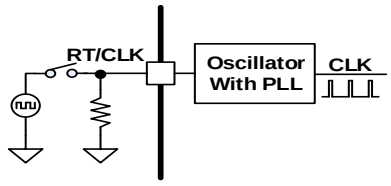
, Q W H U Q D O 9 R O W D J H 5 H J X O D W R U

Qeb P Q/32- fkdpdo dpp k fkdpdk i pl oq*pq oq fo r fq qe q o j mp qeb dodbdbk b liq db odj bd liqp q -+5S dodbdbk b liq db fk 1 j p+Fc qeb BK mfk fp mr iiba _bil .+2S) p fq efkd pq mp ka qeb fkdpdk i pl oq*pq oq dopbpbqp+ Qeb pl oq*pq oq ipl dopbqp ar qfkd per qal k ar b q qeboj il bdl afkd+

6 Z L W F K)U HJ X H Q F \ D Q G & O R F N 6 \ Q F K U R Q L] D W L R Q

Qeb p fq efkd odbnr bk l c qeb P Q/32- fp pbq_ mi fkd dopfpdq o_bq bbk OQ, l H mfk ka qeb ddo r ka) l o p k edo kf fkd q k b dpdk i il h+

Fk dopfpdq opbqpfkd odbnr bk j l ab) dopfpdq omi ba_bq bbk OQ, l H mfk q qeb ddo r ka pbqp qeb p fq efkd odbnr bk l bo fab o kdb odj .--HE q .+/J E +Qeb OQ, l H mfk liq db fp q mf i-+2S+OQ, l H mfk fp kl q iil ba q _b ibqqdl qfkd l opel qpa q qeb ddo r ka+Rpb Bnr qfk 1 l oqeb mil qfk Cfdr do .-+q abdpoj fkb qeb dopfpq k b d: o p fq efkd odbnr bk kbbaba+



ebdo) qp fp p fq efkd il h odbnr bk

Cfdr do .-+Pbqfkd Odbnr bk ka il h P k edo kf qfk

Fk il h p k edo kf qfk j l ab) qeb p fq efkd odbnr bk p k edo kf bp q k b dpdk i il h mmfba q OQ, l H mfk+ Qeb p k edo kf qfk odbnr bk o kdb fp odj .--HE q .+/J E ka qeb dpfkd badb l c qeb PT p k edo kf bp q qeb c iifkd badb l c qeb b dpdk i il h qOQ, l H mfk fqe q mf i 33kp qfj b abi + pnr do b il h pfdk i q OQ, l H mfk j r pq e b efde ib bi kl il boqe k /S) il ib bi kl efdeboqe k -+1S) ka mr ipb faqe i odboqe k 5-kp+

Fk mmif ql kp ebdo _l qe dopfpdq opbqqfkd odonrbk j l ab ka il h p k edl kf ql k j l ab do kbbaba) qeb ab f b k _b l kofdrdoba p pel k fk Cfdrdo .-+ bd do k b dpdk i il h fp modopbkq) qeb ab f b l dnp fk dopfpdq opbqqfkd odonrbk j l ab+T ebk k b dpdk i il h modopbkqp) qeb ab f b rq j qf ii qp kpfql kp od j dopfpdq opbqqfkd j l ab q b dpdk i il h p k edl kf ql k j l ab+ k fkdpdk ime pb il hba il l mMI il hp fkdpdk i il h odonrbk l kdq qeb b dpdk i il h fqefk q mf i 52rp+Qeb l k bodpocp kpfql kp od j qeb il h p k edl kf ql k j l ab dq qeb dopfpdq o pbqqfkd odonrbk j l ab ebk qeb b dpdk i il h afp mmb qp+

%RRWVWUDS 9ROWDJH 5HJXODWRU ZLWK SRZHU IDLO LQGLFDWLRQ

k b dpdk i _l l qpqp m m fdq o_bq bbk L L Q mfk ka PT mfk ml bqp qeb oil qfkd d qp aof bodq efde*pfab ml bo J L P C B Q+Qeb _l l qpqp m m fdq o l iq db fp e odba od j k fkqdo dpa l iq db dodr i dq o ebk efde*pfab ml bo J L P C B Q fp l cc ka qeb b dpdk i il *pfab af l ab l kar qp+Qeb do l j j bkaba irb l c qeb L L Q m fdq ofp -+ C+

Qeb RSIL l c efde*pfab J L P C B Q d qp aof boe p qfpfkd qedopel ia l c /+2/S ka e pqpdopfp l c /0- j S+T ebk qeb ab f b l mbo dpp fqe efde arq ib l o b qpbj bi ifdeq il a) _l l qpqp m m fdq o j _b kl q do e odba fk l kpfabo _ib il kd qfj b+Qeb l iq db q_l l qpqp m m fdq ofp fkprqf fbkq aof b efde*pfab J L P C B Q rii l k+T ebk qeb l iq db dpp _l l qpqp m m fdq oad mp _bil /+6S) L L Q RSIL l rqp+Qeb l k bodpod o bp q dkfkd l k k fkqdo dpa il *pfab J L P C B Q mbof af ii dq dodope qeb l iq db l c_l l qpqp m m fdq oq dr o kqpb qeb l k bodpop l mbo ql k l bo fab arq o kdb+

Ar ofkd qeb l kafql k l cr iqp *il l iq db afodbok b od j qeb fkmrqq qeb l rqmrq)P Q/32- l mbo dpp fk l l Ad mf*Lrq l AL j l ab+Efde*pfab J L P C B Q do j fkp qr dkfkd l k pil kd p qeb L L Q mfk dq PT mfk l iq db fp efdebo qe k L L Q RSIL qedopel ia /+2/S+T ebk qeb l iq db od j L L Q dq PT ad mp _bil /+6S) qeb efde*pfab J L P C B Q qr dkp l cc ka il *pfab J L P C B Q qr dkp l k dq do e odb _l l qpqp m m fdq ombodf af ii fk qeb d iil fkd pb bo i p fq efkd ibp+ I l *pfab J L P C B Q l ki qr dkp l k d o.--kp fk b e dododpe ib dq j fkfj f b qeb l rqmrq l iq db ofmmib+I l *pfab J L P C B Q j qr dk l k d opb bo i qfj bp qfii qeb _l l qpqp m l iq db fp e odba dq efdebo qe k /+2/S d o efde*pfab J L P C B Q l dnfkd kl qj ii +Qeb bodb qf b arq ib l c qeb l k bodpoar ofkd l AL l mbo ql k k _b mmd efkd dq .-- +

Ar ofkd pil fkd ml bo rm ka ml boal k mmif ql k) qeb l rqmrq l iq db k il pbi qp h qeb fkmrq l iq db o j mfkd al k qe khp dq l AL l mbo ql k j l ab+ p qeb fkmrq l iq db fp dbar ba dq kb o qeb l rqmrq l iq db) f+b+ar ofkd pil fkd ml bo*rm ka ml bo*al k mmif ql k) qeb l c*qfj b l c qeb efde pfab J L P C B Q pq qpp dq mmd e qeb j fkfj r j irb+ T fqe l rq l AL l mbo ql k j l ab) _b l ka qefp ml fkq qeb p fq efkd j _b l j b bo qf ka,l o qeb l rqmrq l iq db fii c ii l rq l c ododr i ql k+Q l fa qefp mod _ibj) qeb P Q/32- l AL j l ab rq j qf ii dar bp qeb p fq efkd odonrbk dq fk do pb qeb bodb qf b arq ib ka j fkq fk dodr i ql k+

2YHU&XUUHQW/LPLW

Qeb P Q/32- fj mibj bkqp l bo rodobkq mod dp ql k fqe d ia _ h rodobkq ifj fq+Qeb P Q/32- ib*_* ib ifj fqp efde*pfab J L P C B Q mb h rodobkq l fa fkar dq o rodobkq orkkfkd ar ofkd rkb mb dpa l boil a l o l rqmrq e oa pel oq l ka fql k+

T ebk l boil a l o e oa pel oqe mmbkp) qeb l k bodpo kkl qmod fab l rqmrq rodobkq dq p qpc il afkd dodonrfdoj bkq+ Qeb fkar dq o rodobkq fp i j mba ql bo rodobkq ifj fq ql k+Qerp) qeb l rqmrq l iq db ad mp _bil dodr i dpa l iq db fqe C l iq db ibpp qe k fkdpdk i dododobk b l iq db l kqfkrl rpi +Qeb L J M mfk l iq db o j mp r mdq efde i j m l iq db /+/2S q mf i+

Qeb P Q/32- fj mibj bkqp odonrbk d ia_ h dq mod dp q qeb l k bodpofk rkb mb dpa l boil a l o l rqmrq e oa pel oq l ka fql k qefdebop fq efkd odonrbk fbp ka fkmrq l iq dbp+Qeb l p fii dq o odonrbk fp af faba _ .)/)1) ka 5 p qeb C mfk l iq db c iip od j -+5S dq -S+Qeb P Q/32- rpbp afdfq i odonrbk d ia_ h dq bk _ib p k edl kf ql k dq k b dpdk i il h ar ofkd kl oj ipq oq*rm ka c riq l ka fql k p+Ar ofkd pel oq* for rfqb bkqp) qeb fkar dq o rodobkq k b bba qeb mb h rodobkq ifj fq_b rpb l c qeb efde fkmrq l iq db ka qeb j fkfj r j l k*qfj b+T ebk qeb l rqmrq l iq db fp d o ba il _ qeb pel oq dpa il a) qeb fkar dq o rodobkq ab do pbp pil i ar ofkd qeb p fq e l c*qfj b+Qeb odonrbk d ia_ h bodb qf bi fk do pbp qeb l c*qfj b _ fk do pfkd qeb mbof a l c qeb p fq efkd ib mod fafkd j l do qfj b d o qeb fkar dq o rodobkq q oj mal k+

T fqe j fj r j odonrbk d ia_ h o ql l c5) qeb do fp j fj r j odonrbk q ef e qeb fkar dq o rodobkq k _b l kqoiiba _ odonrbk d ia_ h mod dp ql k+Bnr ql k 2 i ri dpp qeb j fj r j p fq efkd odonrbk q ef e qeb

fkar qlo rodokqdoj fkp rkabo lkqdi ebk SLRQ fpd o ba qj SLRQ PELOQ+Qeb pbib dpa lmbo qfkd odbnr bk j rpq kl qb bba qeb i ri dpa irb+

%2&

ebdo

7l fj fdpa bo db rodokq

7Fkar qlo A dopfpq k b

7J fj r j fkmrq l iq db

7L rqmrq l iq db ar dfkd pel oq

7Afl ab l iq db adlm

7Fkdpdo dpa efde pfab CBQl k dopfpq k b

7 l kqdii _ib j fkfj r j l k qfj b

7Cdbnr bk af fab bnr ip %)/)1 l o5&

2 Y H U Y R OUWRDWJHF3W L R Q

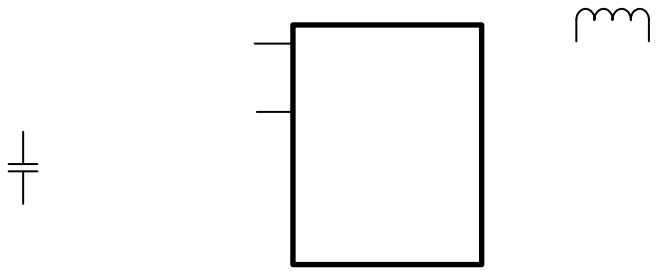
Qeb P Q/32- fj mibj bkqp qeb L bo* l iq db Mdlqp qfl k LSM fo r fqp qj fkfj f b l rqmrq l iq db l bqpel l qar dfkd il a qp kpfbkq)do l bdfkd odj l rqmrqc riq l kafqfl k l oifdeqil a qp kpfbkq+Qeb l bo l iq db l j m o qj o fk LSM fo r fq l j m dop qeb C mfk l iq db qj qeb fkdpdk i dododok b l iq db+T ebk C l iq db b bbap . . - l c fkdpdk i -+5S dododok b l iq db)qeb efde*pfab J L PCBQ qr dkp l ccdj l fa l rqmrq l iq db l kqfkr b qj fk do pb+T ebk qeb C mfk l iq db c iip _bil . - 2 l cqeb -+5S dododok b l iq db)qeb efde*pfab J L PCBQ k qr dk l k d fk+

7 K H U P D O 6 K X W G R Z Q

Qeb P Q/32- mdlqp qp qeb ab f b odj qeb a j db ar dfkd b bppf b eb q ka ml boafppfm qfl k l kafqfl kp+L k b qeb gr k qfl k dpj mbo qr db b bbap . 4/)qeb fkdpdk i qebqj i pbkpl opdj mp ml boJ L PCBQp p fq efkd+T ebk qeb gr k qfl k dpj mbo qr db c iip _bil . 3-)qeb ab f b dopq oqp fqe fkdpdk i pl oqpq oqme pb+

APPLICATION INFORMATION

7\SLFDO $SSOLFDWLRQ



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'HVLJ3QDUDPHWHUV

'HVLJQ 3DUDPHWHUV	([DPSOH 9DOXH
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L rqmrq Sl iq db	0-0S
J fj r j L rqmrq r odbkq	2
P fq efkd Cdbnr bk	2-- HE
L rqmrq l iq db ofmmb %mb h q] mb h&	.3-2j S
Qo kpfbkq Obpmlkpb .-/2 q] 0-42 il a pdpm	Sl r q: .02j S
Pq oq Fkmrq Sl iq db %fpfkd SFK&	2-40S
Pq] mFkmrq Sl iq db %iifkd SFK&	1-12S

2XWSXW 9ROWDJH

Qeblrqmrq liqdbfppbq_ kb dpdk idppfpqloafabo
O2 ka O3 fk qmf i mmif dfk p ebj df+
Obljj bkaba O3 dppfpqk b fp.-+/H +Rpb bnr dfk
3dq iriop O2+

—— %

W

f

,QGXFWRU 6HOHFWLRQ

Qebdo do pb boic qlop pelria _b lkpfabdoba fk pbib opkd fkar qlopr e p fkar q k b)p qro qflk rodbkq)qeb OJP rodbkq ka A dopfpq k b%A O&+l odbofkar q k b dopriqp fkibpp fkar qlo rodbkqdmmib ka qebdod:do ib ap qlil bolrqmrq liqdb dmmib+El b bq)qeb i odbo irb fkar qlo i p lodbpmikap qlo _fddbome pf ipf b) efdebopbdbp dopfpq k b) ka il bop qro qflk rodbkq+ dlla crib d:oabdpcj fkfkd qeb fkar q k b qlrpb fp qlo iil qeb fkar qlomb h*qlo*mb h dmmib rodbkqqlo _b mmd fj dpi /- 1- lcqeb j fj rj lrqmrq rodbkq+

Qeb mb h*qlo*mb h dmmib rodbkqfk qeb fkar qlo FMM k _b iri dpa p fk Bnr qflk .-+

_____ %-&

Tebdo

- FMM fp qeb fkar qlomb h*qlo*mb h rodbkq
- l fp qeb fkar q k b lcfkar qlo
- cPT fp qeb p fq efkd odbnrbk
- SLRQ fp qeb lrqmrq liqdb
- SFK fp qeb fkmrq liqdb

Pfk b qeb fkar qlo* rodbkqdmmib fk do pbp fqe qeb fkmrq liqdb)pl qeb j fj rj fkmrq liqdb fk mmif qflk fp i p rpba qlo iri dp qeb j fkfj rj fkar q k b dbnrfdba+Rpb Bnr qflk .. qlo iri dp qeb fkar q k b irb+

_____ _____ %.&

Tebdo

- l JFK fp qeb j fkfj rj fkar q k b dbnrfdba
- cp fp qeb p fq efkd odbnrbk
- SLRQ fp qeb lrqmrq liqdb
- SFK%p &fp qeb j fj rj fkmrq liqdb
- FLRQ%p &fp qeb j fj rj A il a rodbkq
- lFO fp lbocf fbkqlcFMM qlo FLRQ

Qeb qlq i rodbkqdil fkd qeolrde qeb fkar qlo fp qeb fkar qlodmmib rodbkqmirp qeb lrqmrq rodbkq+Tebk pbib opkd k fkar qlo) ellpb fp o dpa rodbkqbpmb f ii qeb p qro qflk rodbkqi odbodqe k fp mb h lmbo qflk rodbkq ka OJP rodbkq ipl klq_b b bbaba+Qebdod:do)qeb mb h p fq efkd rodbkqlcfkar qlo) FMB H ka FOJP k _b iri dpa p fk bnr qflk ./ ka bnr qflk .0+

___ %/&

_____

__ %0&

Tebdo

- FMB H fp qeb fkar qlomb h rodbkq
- FLRQ fp qeb A il a rodbkq
- FMM fp qeb fkar qlomb h*qlo*mb h rodbkq
- FOJP fp qeb fkar qlo OJP rodbkq

Fk l bdil afkd l oil a op kp fbkq l ka fqflkp)qeb fkar qlomb h rodbkq k fk do pb rmd qeb p fq e rodbkqifj fq lc qeb ab f b ef e fp q mf ii 5 +Qeb j lpq l kpbo qf b mmd e fp qlo ellpb k fkar qlo fqe p qro qflk rodbkq o qfkd ddo dpoqe k 5 + b rpb lcqeb j fj rj FMB H ifj fdba _ ab f b)qeb j fj rj lrqmrq rodbkqqe qqeb P Q/32- k abif bo ipl abmbkap l k qeb fkar qlo rodbkqdmmib+Qerp)qeb j fj rj abpfdba lrqmrq rodbkq ipl

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'L R G6+H O H F W L R Q

Qeb P Q/32- obnrfdbp k b qbqk i q e afl ab _bq bbk qeb PT mfk ka DKA+Qeb pbib qba afl ab j rpqe b do bqpb liqdb oqfkd bnr iqjlodbo qbqeq k SFK%p &+Qeb mb h rodbkqo qfkd l cqeb afl ab j rpq_b ddo qbqeq k qeb j fj r j fkar qjo rodbkq+P el qqh afl abp do q mf ii dl l a el f b d oqeb q e afl ab arb qj qebfoil d o oa liqdb+Qeb il boqeb d o oa liqdb l cqeb afl ab) qeb efdeboqeb bcof fbk l cqeb obdri qjo+

Q mf ii) afl abp fqe efdebo liqdb ka rodbkqo qfkdp e b efdebod o oa liqdbp+ afl ab fqe j fkfj r j l c 3-*S do bqpb liqdb fp mbobobba qj iil fkmrq liqdb qp kpfbkqp r mqj qeb o qba liqdb l cqeb P Q/32-+

Cl oqeb b j mib abpfdk) qeb 23- *.0*CP el qqh afl ab fp pbib qba d ofqp il bod o oa liqdb ka dl l a qebqj i e o qbqbpqf p l j m oba qj pj iiboab f bp+Qeb q mf id o oa liqdb l cqeb 23- *.0*C fp -+4 liqp q2 +

Qeb afl ab j rpq ipl _b pbib qba fqe k mmbmof qp ml boo qfkd+Qeb afl ab l kar qp qeb l rqmrq rodbkqar dfkd qeb l cc*qfj b l cqeb fkqbdk i ml bop fq e+Qeb l cc*qfj b l cqeb fkqbdk i p fq e fp or k qfl k l cqeb j fj r j fkmrq liqdb) qeb l rqmrq liqdb) ka qeb p fq efkd odbnrbk +Qeb l rqmrq rodbkqar dfkd qeb l cc*qfj b fp j riqfmifba _ qeb d o oa liqdb l cqeb afl ab qj i ri qp qeb fkpq kq kblrp l kar qfl k il ppbp l cqeb afl ab+ qefdebop fq efkd odbnrbk fbp) qeb il ppbp l cqeb afl ab kbba qj _b q hbk fkqj l rkq+Qeb il ppbp l cqeb afl ab do arb qj qeb e odfkd ka afp e odfkd l cqeb gk qfl k m fq k b ka do bqpb do l bo e odb+Bnr qfl k .1 fp rpba qj i ri qp qeb qj q i ml boafppfm qfl k) fk ir afkd l kar qfl k il ppbp ka il ppbp l cqeb afl ab+

Qeb 23- *.0*C afl ab e p gk qfl k m fq k b l c0-- mC+Rpfkd Bnr qfl k .1) qeb qj q i il pp fk qeb afl ab qqeb j fj r j fkmrq liqdb fp 0+20 T +

Fcqeb ml boprmmi pmbkap pfdkfcf kq j l rkq l cqfj b qifdeqil a rodbkqp l ofk pibbmj l ab) l kpfabo rpfkd afl ab ef e e p il ib h db rodbkq ka pifdeqi efdebod o oa liqdb ad m+

%1&

,QSXW &DSDFLWRU 6HOHFWLRQ

Qeb fkmrq rodbkqqj qeb pdpm*al k A A l k bqdpofp afp l kqfkr l rp) qebdod do fqdonrfdbp m fqjodj prmmi qeb rodbkqqj qeb pdpm*al k A A l k bqdpo efib j fkq fkfkd qeb A fkmrq liqdb+Rpb m fqjqp fqe il BPO d o_bqdpombod oj k b+ bo j f m fqjqp fqe U2OloU4Oafbibqpfpdorprriiprddbpdpa_b rpb l cqebfoil BPO ka pj iidpj mbo qrdo l bcof fbkqp) ka fqfpppdkdi do l j j bkaba qj rpb kl qeboil bo irb m fqjo%+d+ -+rC& fqe pj iim h db pf b %3-0&qj dfdpoefdecdonrbk p fq efkd kl fpb+Ml b qeb pj iipf b m fqjo p il pb qj SFK ka DKA mfkp p ml ppf_ib+

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%2&

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%3&

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Qeb fkmrq m fq k b irb abdpoj fkbp qeb fkmrqofmmib l iq db l cqeb dodri dj o+Qeb fkmrq l iq db ofmmib k _b i ri dpa rpfkd Bnr qf k . 4 ka qeb j fj r j fkmrq l iq db ofmmib l rqp q2- ar q ib+

%4&

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%R R W V W U D S &D S D F L W R U 6H O H F W L R Q

-+ C bo j f m fdjo j rpq_b l kkb dpa _bq bbk L L Q mfk ka PT mfk d: omd mbo l mbo qf k+ bo j f m fdjo fqe U2O l o_bqpbodo ab afbib qpf fp do l j j bkaba+Qeb m fdjopel ria e b .-S l oefdebo l iq db o qfkd+

2X W S X W &D S D F L W R U 6H O H F W L R Q

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Qeb l rqmrqofmmib fp bppbkqf ii l j mipba l cq l m oqp+L kb fp rpba _ qeb fkar dj o rodbkqofmmib dl fkd qed: rde qeb Bnr f ibkqPbodbp Obpfpq k b BPO l cqeb l rqmrq m fdjqp ka qeb l qebofp rpba _ qeb fkar dj o rodbkqofmmib e odfkd ka afp e odfkd qeb l rqmrq m fdjqp+Qj efb b pj ii l rqmrq l iq db ofmmib) el l pb il *BPO l rqmrq m fdjo ifhb bo j f m fdjo+ Cl o bo j f m fdjqp) qeb m fq k b al j fk dpp qeb l rqmrq ofmmib+ Cl o pfj mifdf qf k) qeb l rqmrq l iq db ofmmib k _b bpqfj dpa _ Bnr qf k . 5 abpfdba+

%5&

T ebdo

- fp qeb l rqmrq l iq db ofmmib
- o-T fp qeb p fq efkd odbnr bk
- l fp qeb fkar q k b l cfkar dj o
- LRQ fp qeb l rqmrq m fq k b
- SLRQ fp qeb l rqmrq l iq db
- SfK fp qeb fkmrq l iq db

Ar b dj m fdjop abdo afkd r kabo A _f p) qeb _f p l iq db k pfdkfdf kdj dbar b m fq k b+ bo j f m fdjqp k il pb j l pqj l cqebfo m fq k b q o dpa l iq db+Qebdod: db) ib b j odfk l k qeb l iq db o qfkd dj bkpr db abnr dp bodb qf b m fq k b+Q mf ii) d: r o14 C bo j f l rqmrq m fdjqp l ch d: oj l pq mmif qf kp+

&R P S H Q V D W L R Q &R P S R Q H Q W V

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%6&

ebdo

- B fp bodo j mifdbo l iq db d fk
- DfPKP fp L J M dj PT rodbkqqp kp* l kar q k b) . 4 ,S q mf ii

Qeb A l iq db d fk l cqeb il l mfp df bk _ bnr qfl k /- +

%- &

Qeb p pdpj e p q l kl dp l oqe m

, /-

Q_ib 0 ifpqp q mf i irbp l c l j mbkp qf k l j mkbkqp d opl j b pq ka oa l rqmrq l iq dbp fqe qf rp l rqmrq bo j f m fdqop ka fkar dqop+Qeb irbp l c qeb l j mbkp qf k l j mkbkqp e b _bbk l mqfj f ba d o c pq qp kpfbkq dopmkpbp ka dl l a pq _fifq+Cl oqeb l kafqf kp kl q ifpq fk Q_ib 0) rpdj bqp k rpb Bnr qf k /4* Bnr qf k /6 d l mqfj f b qeb l j mbkp qf k l j mk 6

,QYHUWLQJ 3RZHU DSSOLFDWLRQ

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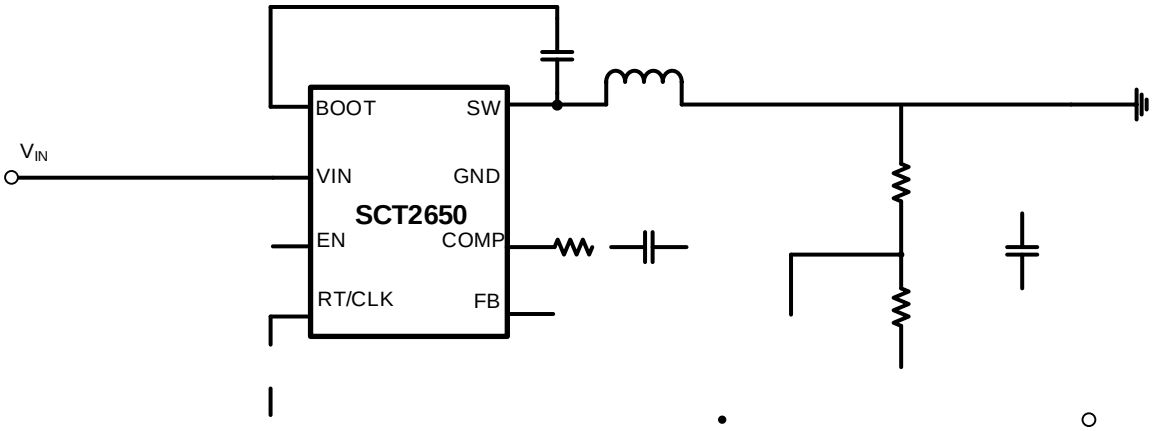

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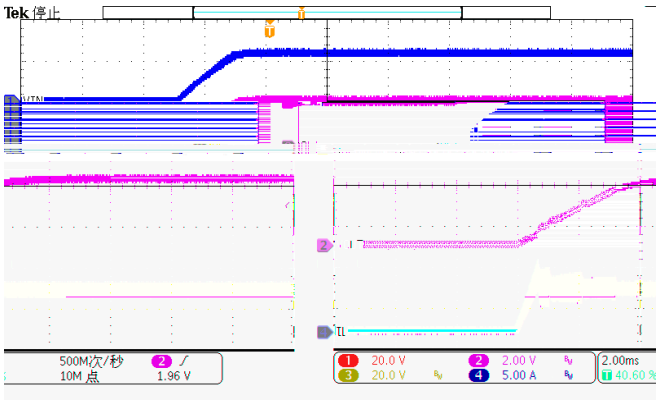

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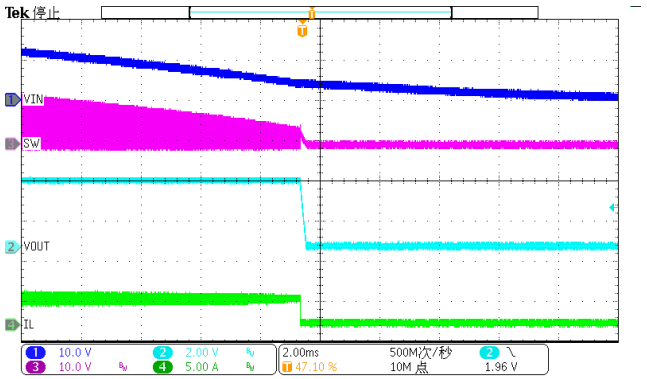

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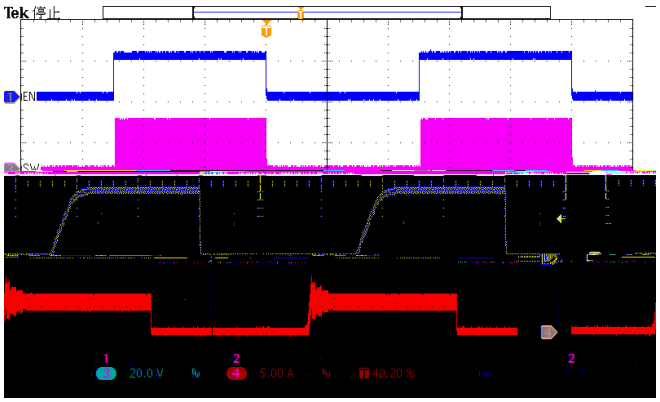
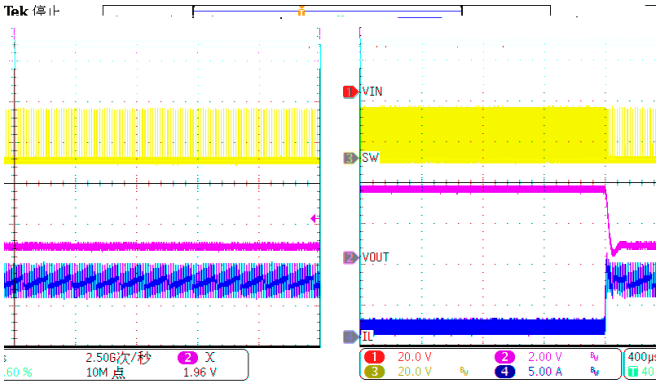


Cfdr do . 2+BK qj ddib %fil a: 0-2 &

Cfdr do . 3+BK qj ddib %fil a: / - j &



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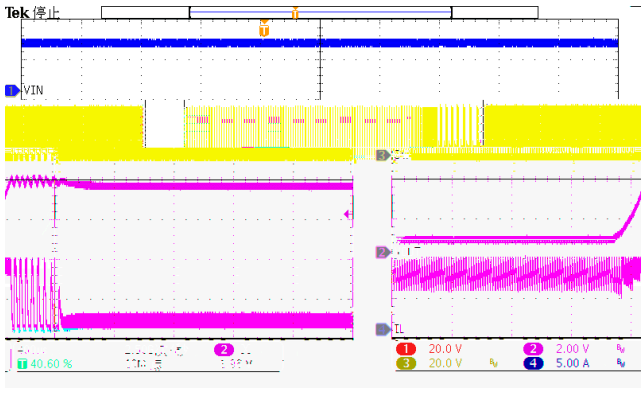

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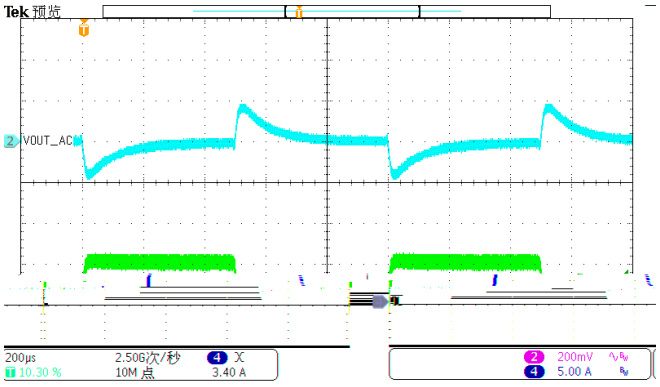

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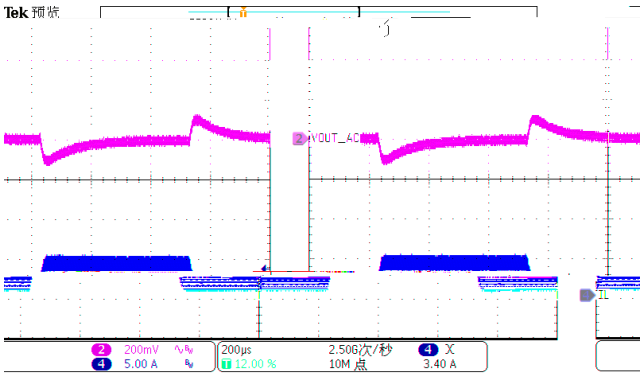

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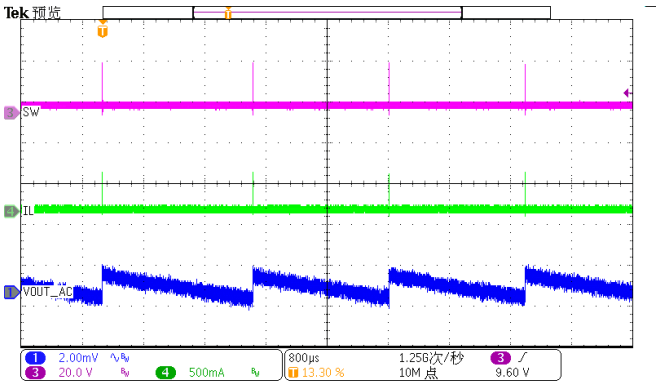

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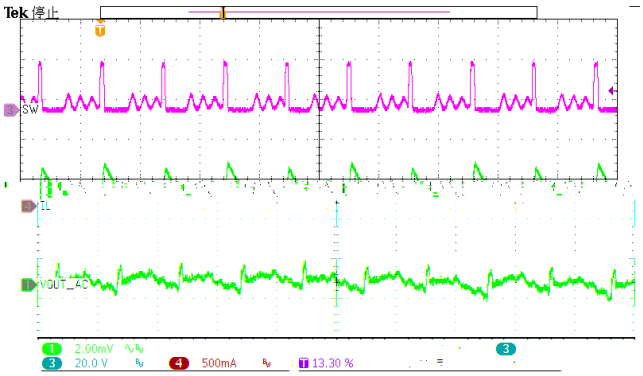

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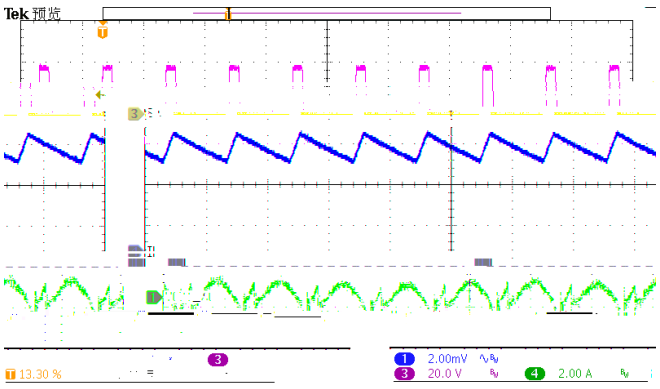

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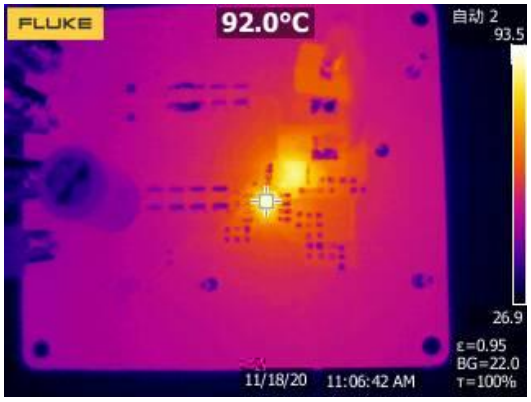

Cfdr do /1+Qebqj i)/1SFK)0-0Sl r q)2

/ D \ R X* W/ L G H O L Q H

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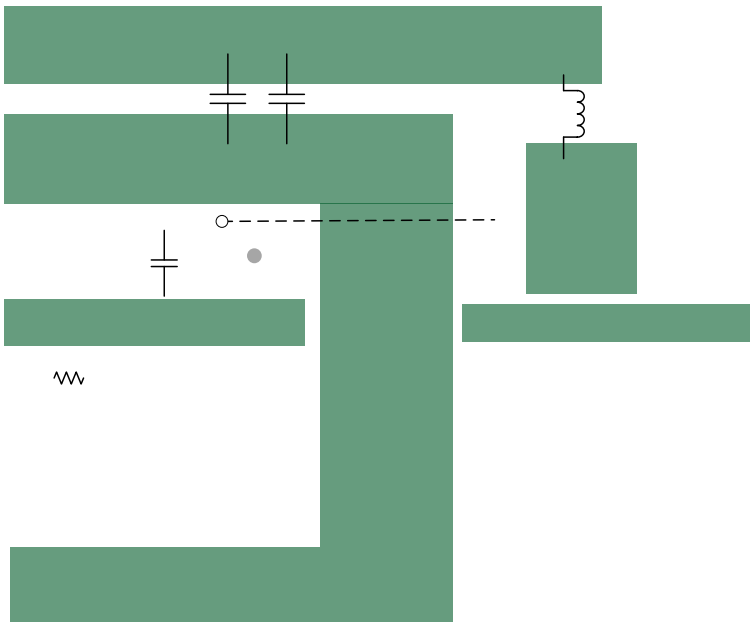
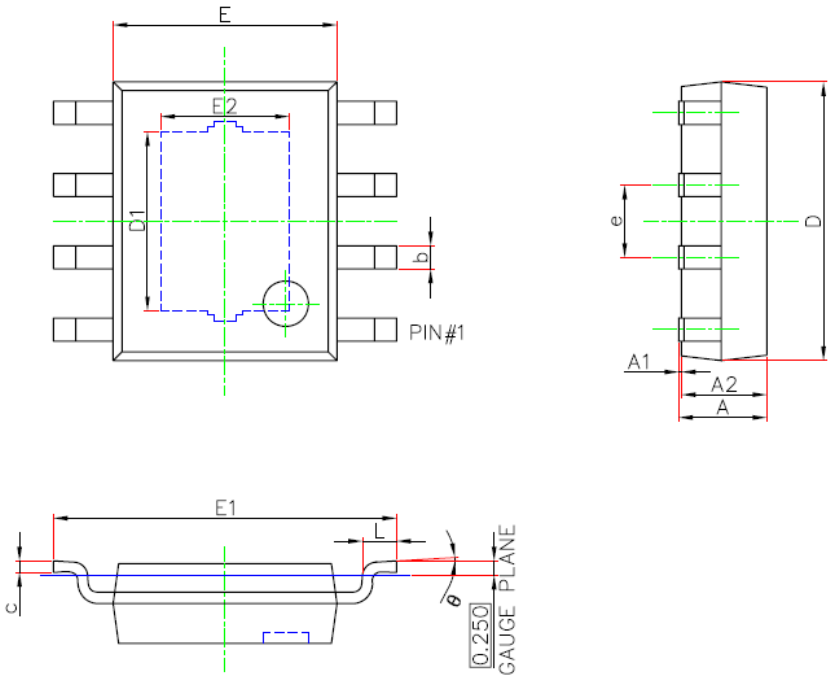
1. M bo ddo rka fkd p ebj b fp bo ofof i _b rpb l c oo fkd mi bo) qebo j i) ka difqe,_l r k fkd kl fpb ppl f dpa fqe il h odbnrbk +Qeb qerj _l c ori b fp dj j hb ddo rka op b il bpq fj mbkabk b ka mi bo do afpqpf_r dpa b bki l k M +Prof fbkq mi fkd ddo rka do fii l mofj f b qebo j i ka klq rpfkd l boeb q do +
2. Mi b il BPO bo j f m fdjo p il pb dj SFK mfk ka qeb ddo rka p mi ppf_ib dj dbar b m o pfof bodb q+
3. Cdob ebbifkd afl ab pel ria _b mi b p il pb dj PT mfk ka qeb ddo rka p mi ppf_ib dj dbar b m o pfof bodb q+
4. Cl ol mbo qfk qcr ii o dpa il a) qeb dj mpfab ddo rka do j rpq mdo fab abnr dp eb qafppfm qfkd do +J hb pr do dj mp fq efkd il l m fqe mi boe b il bofj mbkabk b l cddo rka fkd+
5. Qeb _l qdj j i bofp i odb ddo rka mi kb l kkb dpa dj qeb ddo rka mi kb l k dj mi bo_ f p+Qeb mi bom a pel ria _b l kkb dpa dj _l qdj j M ddo rka mi kbp rpfkd j riqfmib f p afdo oj r kabo qeb F + Qeb bkdpo qebo j i m a pel ria i p _b pl iabdoba dj qeb _l oa d:o j b e k f i pqdbkdqe ka dbif _fifq) r pfkd j riqfmib qebo j i f p r kabdkb qe qeb qebo j i m a+Fj mdo mbopl iabdfkd qebo j i m a dj ddo rka mi dp l k M fii rpb PT efdlebodfkd fkd ka l bqpel l q_bpfabp al kdo afkd qebo j imbod:oj k b+fqfp do l j j bkaba 5j fi af j bdpoaofii elibp l cqebo j i f p)_r q pj iibo f l odbqpibpp dfph l cpl iabo l ir j b il pp+L k mmif qf kp ebdo pl iabo l ir j b il pp qeor qeb f p fp l c l k bdk)mir ddfkd l odpkqfkd k _b r pba dj efb b dbmb q _ib mdo bpp+
6. L rqmr qfkar dj o ka odob ebbifkd afl ab pel ria _b mi ba il pb dj qeb PT mfk+Qeb p fq efkd do l cqeb M l kar dj oj fkfj f ba dj mdo bkqb bppf b m fdf b l r mifkd+
7. Qeb OQ l H dpoj fk i fp pbkpfof b dj kl fpb pl qeb OQ dopfpdj opel ria _b il dpa p il pb p mi ppf_ib dj qeb F ka do r dpa fqe j fkfj i ibkdqep l cqp b+
8. RSI L agr pq ka OQ dopfpdj op) il l m l j mbkp qf k ka dobba_ h l j mi kbkqp pel ria l kkb qdj pj ii pfdk i ddo rka ef e j r pqdbqr dk dj qeb DKA mfk fqel rq k fkdpoib fkd fqe mi boddo rka+
9. Ol r dp L L Q m fdjoqp b l k qeb l qeboi boqe k dj mi bodj mdo fab fab m qe d:od j mpfab ddo rka+
10. Cl o efb fkd _bqpboqebo j imbod:oj k b) d:r o'i boi l rqfp pqdkdi do l j j bkaba+



Cfdr do / 2+M l l rqB j mib

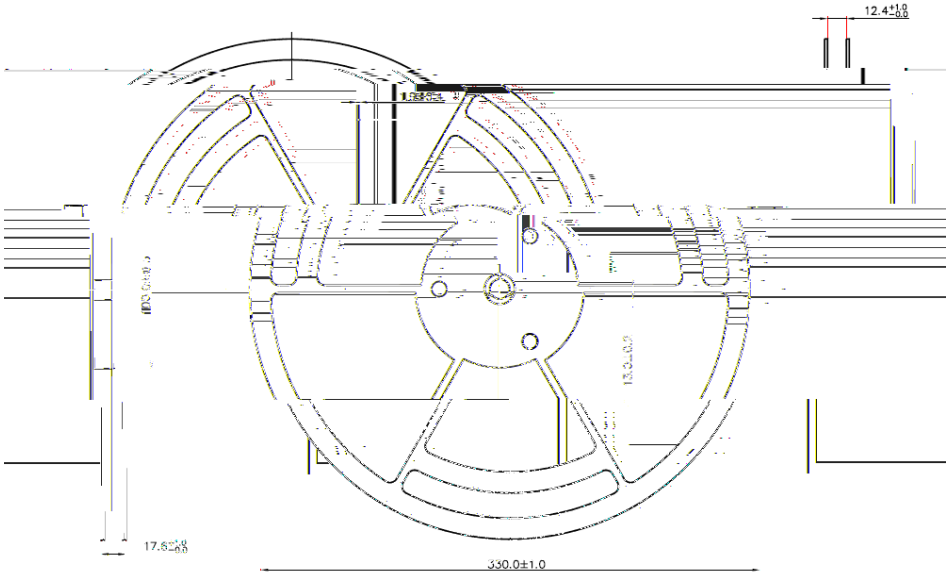
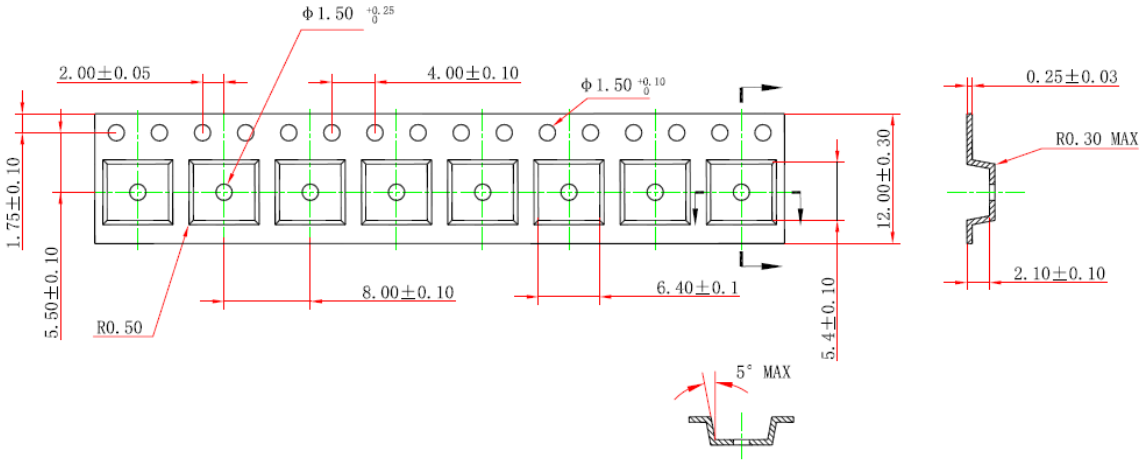
PACKAGE INFORMATION



PL M5,MM%62 . 0- &M h db L r qjfkb Afj bkpfl kp

P j _l i	Afj bkpfl kp fk J fiifj bdpqp		Afj bkpfl kp fk Fk ebp	
	J fk+	J +	J fk+	J +
	. -0- -	. -4- -	- -+ 2.	- -+ 34
.	- -+ - -	- -+ - -	- -+ - -	- -+ - 1
/	. -02-	. -22-	- -+ 20	- -+ 3.
_	- -00-	- -2. -	- -+ . 0	- -+ / -
	- -+ 4-	- -/ 2-	- -+ - 4	- -+ . -
A	1 -+4- -	2 -+ - -	- -+ 52	- -/ - .
A.	0 -+ 2-	0 -/ 2-	- -+ / -	- -+ / 5
B	0 -+5- -	1 -+ - -	- -+ 2-	- -+ 24
B.	2 -+5- -	3 -/ - -	- -/ / 5	- -/ 11
B/	/ -+ 3-	/ -03-	- -+ 52	- -+ 60
b	. -/ 4- %P &		- -+ 2- %P &	
l	- -fl - -	. -/ 4-	- -+ . 3	- -+ 2-
θ	-	5	-	5

1 2 7 (

1. Ao fkd mdo mlpba dj _b j ab GBAB m h dbl rqjfkb J L */ / - of qfl k+
2. Ao fkd kl qdj p ib+
3. ii ifkb oafj bkpfl kp do fk j fiifj bdpqp+
4. Qebqj i m a pe ii _b pl iabdoba l k qeb _l oa+
5. Afj bkpfl kp l cb mlpba m a l k _l qfj j l cm h db al kl qfk ir ab j l ia di pe+
6. l kq qM _l oa c _of qfl k d oj fkfj r j pl iaboj ph b_dj ibo k bp _bq bbk qeb mfkp+

TAPE AND REEL INFORMATION