

REVISION HISTORY

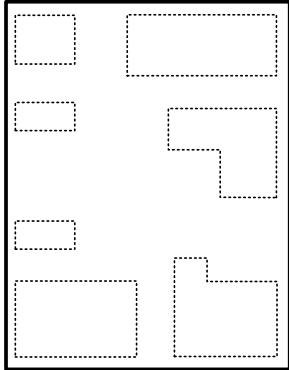
AF7, BSYW g_TWb XdbdW age dW e a e _S VXXa_bSYW g_TWb fZWUgdWfhWb a
 DVH # , DWSeWfa _Sd W
 DVH #, GbVSfW67H 57 AD67D 8AD 3F A
 DVH # , GbVSfWDWla__WWW5a_ba Wf WUfa eS VDWla__WWW84 DWefadDS YW
 DVH # % GbVSfWAfgbf Ha fSYWDS YWS V-3B7 3 6 D77 8AD 3F A

DEVICE ORDER INFORMATION

E5F %% G3D	V DWV	)	) 75 93 J #)	%	

ABSOLUTE MAXIMUM RATING

AhWlabVSf YXWWSdfW bWsfVg VeeafZVd eW afWV #

			PIN CONFIGURATION
H	%fa #+	H	
HEI	# fa #+	H	
HEI . # e	fa #	H	
H4EF	HEI %fa HEI (	H	
H84	%fa (	H	
H7	%fa (	H	
F<	& fa #	°5	
F _{EF9}	(fa #	°5	

E5F %% Fab H W

-- j #) --

EfdWV TWa VfZaeW efWVg W13 Tea gW Sj _g_DSf Y_S USgeWWWUWbWd_S Wf VS_SYWFZWVUWe af YgSc6 fWVfa
 Xg Ufa age WAXfeDWa__WWWAbWsf a 5a Vf a e
 FZW5 U WVe ahWfWV bWsfVbdfWUfa fa bdfWUfZWVUW Vgd YahWlaSVUa Vfa e <g Ufa fW_bWsfVdM VYUWV # 5
 i ZW ahWV W_bWsfVbdfWUfa eSu hW5a f gage abWsf a StahWfZWbWUXW_Sj _g_ abWsf Y g Ufa fW_bWsfVdM
 dWgUW X _W

PIN FUNCTIONS

HAGF	#	Bai Wfagfbgf b VSeWgeWSe SdYWS agfbgf USbSUfadSe baee T Wfa dWgUWagfbgf ha fSYW dbb W
84		4gU Ua hWfWfagfbgf XWVTSU eWe Yha fSYW 5a Wf S dWefadVh WfXa_ HAGF fa 84 fa eW gb agfbgf ha fSYW FZWWh UWdWg SfV 84 fa fZW fW S dWUWUWaX *H f b US
7	%	7 STWaYU bgf FZWWh UWZSe bdWUe a WSTWfZdWZa Ve # H de Y ## H X Y XdbdYdS_ STWGH A fZdWZa VS VZ efWUe
4EF	&	Bai Wfegbb XdfZWZYZ e Wbai W AE87F YSfWdhW gefUa Wf S # 8adYdWfW UWS_ UUSfSUfadTW W 4EF b S VEI aW
EI		Bai WfEi fUZ YAgfbgf EI efZWei fUZ Y aWfZSfegbb V bai Wf fa fZWagfbgf afW fZSf S USbSUfad e dWg dW Xa_ EI fa 4EF fa bai Wf fZWZYZ e WfEi fUZ
H	(	Bai Wfegbb bgf H egbb V fZWbai Wf fa fZW5 Sei W Se fZWefV Vai Ua hWfW ei fUZV 6 hWH i fZS & H fa * H bai Wf eadW 4 bSee H fa 9 6 i fZS egfST SdYWSbSUfadfa W_ SfW a eWa fZW bgf fa fZW5 EVW bgf 5 SbSUfad
B9 6	)	Bai WfYdg V gef TWfa WfW VdWf fa Ydg V b S W

RECOMMENDED OPERATING CONDITIONS

AhWabWf YXWVSdfW bWfSfgdW YWg Vee afZW eW afW

H	bgf ha fSYWdS YW	&	*	H
F<	AbWf Y g Ufa fW_bWfSfgdW	&	#	5

ESD RATINGS

H _{7E6}	: g_S 4aV aW: 4 bW13 E <7675 <E # #&ebWUXSfa S b e# 5 ZSdYW 6 W UW aW56 bW13 E <7675 <E #&ebWUXSfa S b e#			H H

ELECTRICAL CHARACTERISTICS

H / * H F< / & 5 # 5 f b US hSgVdSdWfWfWg Wd 5

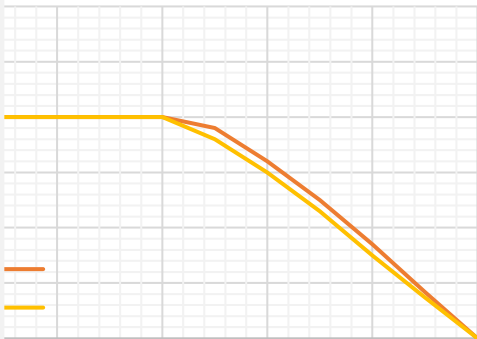
H	AbWd Y b g f h a fSYW		& *	H
H QGH A	b g f GH A : e fWd e	H de Y	& %	H H
E6	EZg fV UgdWf	7 / a aSV H / * H	+	3
c	C fWf UgdWf	7 / H a aSV a e fUZ Y H / * H 4EF EI / H		3
H7 Q	7 ST WZY Z fZdVZa V		#	H
H7 Q	7 ST Wai fZdVZa V		##	H
D6EA Q	: YZe W87F a dVefS UW			—
D6EA Q	ai e W87F a dVefS UW		&	—
H84	8WVTSU Ha fSYW	F< / 5 55	) ** * * #	H
Q E6	E6 hS W UgdWf _ f		& % &	3
8EI	Ei fUZ YXWgWU	H / * H HAgf / H	#	:
fA Q	_g_ a f_ W		)	e
fA88Q	_g_ aXf_ W			e
fEE	fVd S eaXefSd f_ W		%	_e
F E6	FZWd S eZg fVai fZdVZa V : e fWd e	F< de Y	#	5

TYPICAL CHARACTERISTICS

8 YgdW# 7XUWU he aSV5gdWf H /) H

8 YgdW aSVDWgSf a H / H

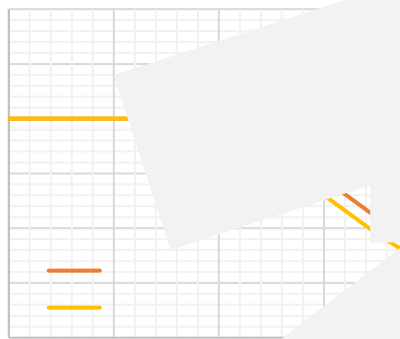
8 YgdW/5 ... F<7FC 8 (Y %g %dW% EbS ... 5 6 # S Y W GE 465 c% (&&*(*& ## ## & (%* & F.



3_TWfFW_bWsfgdV

FZW_S 6Wsf Y HAGF/ #*H <3/(5 I

Agfbgf 5gdWf 3

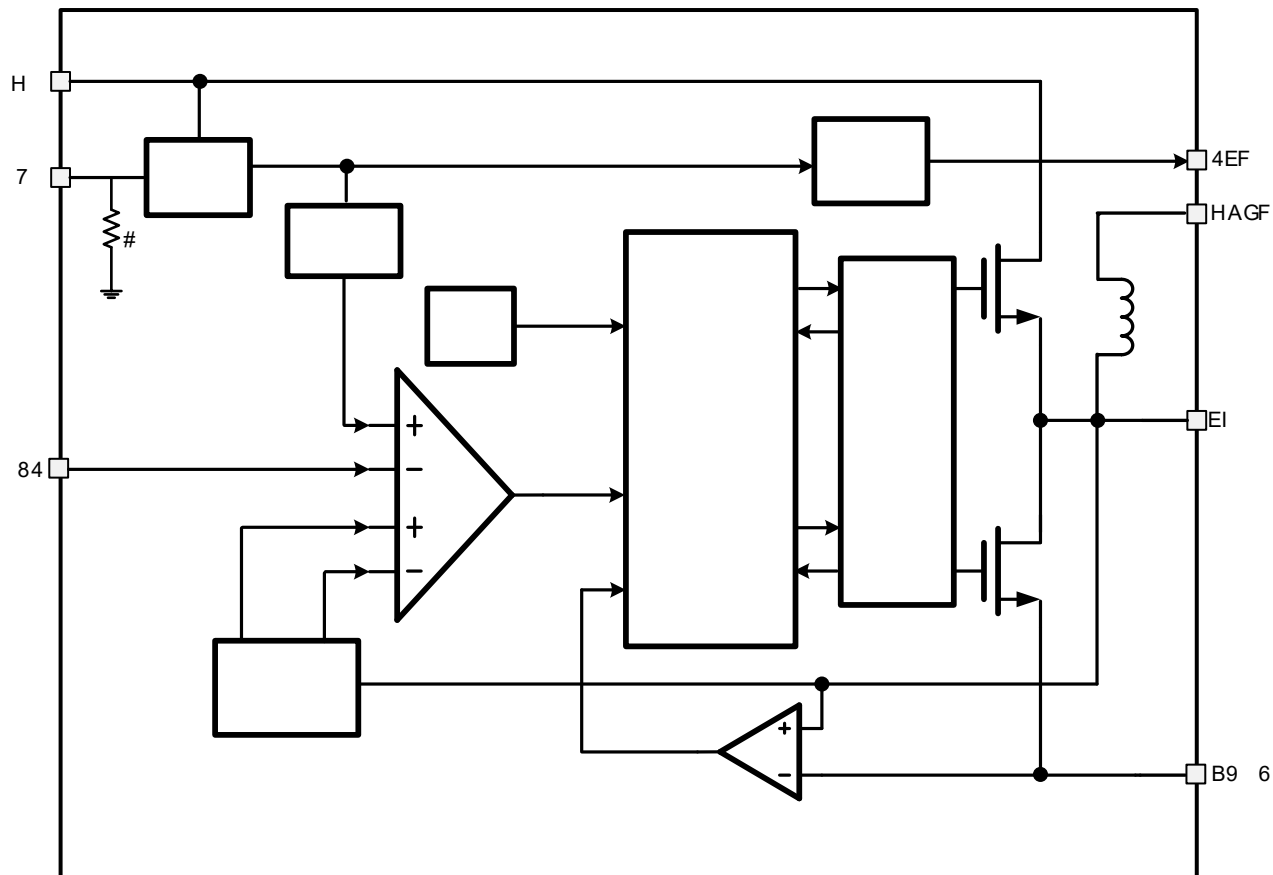


3_TWf

8 YgdW* FZWf

rZW_S 6Wsf Y HAGF/ H <3/(5 I

FUNCTIONAL BLOCK DIAGRAM



8 YgdW# 8g Ufa S 4 aU 6 SYdS_

OPERATION

FZWE5F %% WUWe& * H bgf 3 agfbgf e UZda age efVb Vai Ua hWFW_aVgW fZ fW S bai Wd
AE87Fe 3VSbfhWUa efS fa f_W35AF Ua fda eW_ba Wfabdah WSeffS eWfdVba eWS VVSe aab
efST Sfa 3ffZWTVW YaXWUWUWfZWZYZe WW AE87F efgd W a XadSxjW a WeZaff_WA f_W
bWav FZWa WeZaff_WeUSUgSfWfT fZWUa hVWle b fha fSYWH S VfZWagfbgfha fSYWHAGF U UW
T U UWTSeWfa_S fS SbeVgVa fW XWgWahWfV bgfha fSYWdS YWZWUWf e US W/SVShW a
f_WUa fda E5F %% fgde aXZy e WW AE87F SxWd WXjW a f_WS Vfgd e a fZWai e WW AE87F
E5F %% fgde aXfZWai e WW AE87F a UW Vagfbgfha fSYWdabbW TWai fZWagfbgf dVgSfa fW a W
Z f_WfZW dVW S VfZWZYZ AE87F efgd W a SYS FZWa f_We hVW bdaad? Sfa fZW
fha fSYWS Vbdaad a S fa fZWagfbgfha fSY fUS TWUSUgSfW ge YfZWai YVgSfa #,

HAGF
H

#

I ZWV

HAGF e fZWagfbgfha fSYW
H e fZW bgfha fSYW
Xe fZWei fUZ YWgWU

3XWIS A f_WbWdV fZWdVg fdaV e fa fZWA88 f_WbWdV FZWA88 f_WbWdV WYfZWVWVe a H84
_aefUSeV fi WVi ZW fZW 84 ha fSYWWUdSeV TWai *H Sfi ZUZba fW a f_WbWdV efdYWWV
XfZWA88 f_WbWdV e VefZS fZW_ _g_ A88f_WfZW_ _g_ A88f_WfZW_ TWsbb W i ZUZ e Sdg V
ef bUS

FZW5F %% eW eY W/i fZ Bai WEShW aWBE Sf YZf aSVUa Vfa e XadZYZ bai WdWUWU FZW
dWfSfadSgfa_SfUS UagUe fZWei fUZ YXWgWU S VVfWVeFaXi ZW a Fa UZS Y YVgd YfZW YZf
aSVUa Vfa fa YWZ fWUWU S V ai agfbgf dbb V3efZWagfbgfUgdWfWUdSeV Xa_ZVh aSVU Vfa
fZW VgUfadUgdWfWfWSeV Sei W WfWfgS Vsd Y W a UgdWf fZe e fZWTag Vsd TW W 5 S V
35 FZWai eW AE87F efgd W aXi ZW fZW VgUfadUgdWf dVUZV W a W W FZW aSV e bdaW a
T agfbgf USbSufad fZW 84 ha fSYW e ai WdZS *H fZW Wf A U UWTW e I ZW f Vagfbgf UgdWf
UdSeV Xa_Yfha ZVh aVfZWei fUZ YWgWU UdSeV fa Wb agfbgfha fSY FZW S efa ba fha
YZf aSVabWf a US TWUSUgSfW ge YfZWai YVgSfa ,

I ZWV

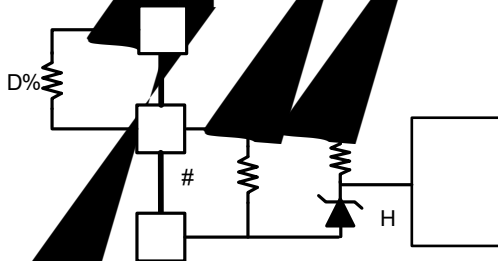
ea

FZWE5F %% W eY W fa abWfW Xb bgfha fSYWdbb dS YWTVW W & H fa * H e Vef #g8
WVagb YWU USB e dWU_ W WUWb bSee fZWegdbb a eW XfZW bgf egbb aUSV e_adWfZS S XW
UZV Xa_fZWUa hWFW S SWfa S Wfa fUadfs fSg_Tg USbSufadadi fZ dWU_ W W W # g8_S TW
dVgdW SWfa fa fZWAUS UW S_ UT bSeUSbSufad

FZWE5F %% G WdHa fSYW aU Agf GH A WSGf efSdgb fZdVef bUS &Hi fZH de YS VeZgfVai
fZdVefZa V e %()Hi fZH XS Y FZW_adWSUg dSWGH A fZdVefZa VUS TWbdYdS_ WfZdgYZ fZWbdUe a
WSTWfZdVefZa Vax7 b

I ZW Sbb YSha fSYWZ YZWfZS fZW7 ZYZ fZdVefZa V f bUS # H deW fZWE5F %% WSTWfS Xg Ufa e
S V fZWVW UWefSde eaX efSd bZSeW FZWE5F %% ZSe fZWtg f %_e eaX efSd f_ Wfa bdWf fZWagfbgf
ahVefZa S V djeZ UgdWf I ZW 7 b ebg VW ai fZW fWfS EE Wi TWVeUZSdVW fa Ydag V 4gU
abWfSfa e VeSTWf i ZW 7 ha fSYWSe TWai fe ai WfZdVefZa f bUS ## HXS

3 fWfS # dVefadXa_7 fa9 6 S ai 7 XaSf fZgfZa fZWUZb 7 eUS_bW fWfS ge YS H
eWdVefZaVW 8adSbb USfa ei ZWfWSebWUXW/H GH A ha fWfWfWf TWefW 7 Ua WfS dVefadD%fa
H fa Xad_ Sha fSYWWh Wf i fZS # dVefad eWfZWUZb fZa XaSfa aXH GH A ha fSYWSe eZai
8 YgdW## FZWdVefadVefdTgfadD%e USUg SfW 7 7cgSfa



8 YgdW## 3VgefSTWH GH A

%

&

I ZWV

HefSd, H deWfZdVefZa Vfa WSTWfZWVW UW
Hefab, H XS fZdVefZa Vfa VeSTWfZWVW UW
H7 d/ # H
H7 8/ ## H
D/ #

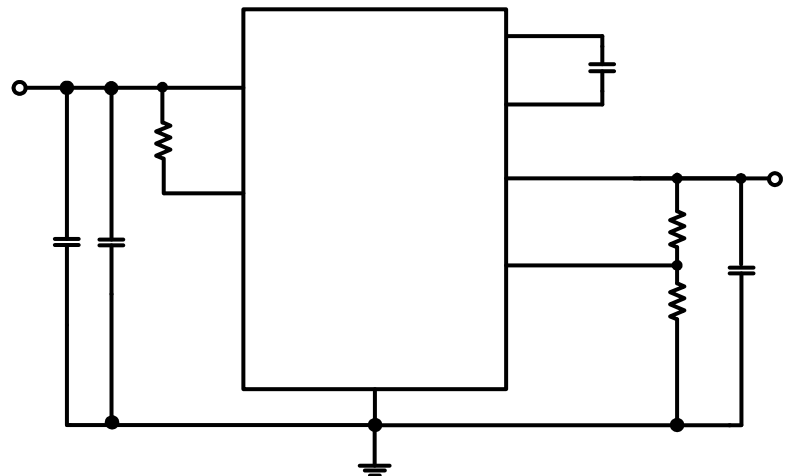
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I ZW fZWha fSYWfWf VW 9 6 b S VEl b e ai WfZS fZWahWfUgdWf fZdVefZa Vha fSYWfZWA5B i TW

fdYWW S VfZWUa fda W WefZWA88 efSfW3 W ei fUZ YU UW TW a i ZW fZW_WSegdW/ha fSYW
e ZYZWfZS _ fha fSYW Xagfbgf aSV YUa f gVef a UfSeV agfbgf i Vdb TWai fZWGHB S VEE b e
VeUZSdYWWegUZfZSf agfbgf e H FZW fZWWM UM Uag f Xad U UWe aXeaX efdf _ WxadZUgbi Sf Yf_W
S VdWefSf ad_S SXW) U UWe eaX efSf bWlaV

3 WfW S Taaf Sb USb fadTW WW 4EF S VEI b ba W XaSf YZYZe WWbai W AE87F YSfWdhW
FZWtaafef Sb Uf SUfadh SYWe UZSdYWW Xa_S fWdSfW ha SYWdYg Sfadi ZW ZYZ e WWbai W AE87F e
aXS V ai eV bai W AE87F e a

A UWfZWg Ufa fW bWfSgdW fZWE5F %% # 5 ZW_S eWe Y Udg f efabe Ua hWfW
ei fUZ S VdW ei fZfZWg Ufa fW bWfSgdW TWai # ZW_S eZgfVai bdW fe fZWS_SYW
a WfW Vgd X UWehWZSf S Vbai WfVeebSfa Vfa

APPLICATION INFORMATION



8 YgdW# * H bgf %H 3 Agfbgf

bgf Ha fSYW	* H
Agfbgf Ha fSYW	%H
Agfbgf 5 gdWf	3
Ei fUZ Y8dWgWU	# :
Agfbgf ha fSYWdbb W bV\$ fa bV\$	_H
Fd eWfDWba eW 3 fa # 3 aSVefVb	Hagf / # _H

8adYaaV bgf ha fSYWXfWl Y UZaaEWai 7ED UWS_ UUSbSUfad 3 UWS_ UUSbSUfad# 8 e dVla_ W WW
XadfZWVWagb Y USbSUfadS V S # 8 UWS_ U T bSee USbSUfad e dVla_ W WW fa TWb SUW Se UaeWSe
baee TWfa fZWH b aXfZWE5F %%

GeW7cgSfa fa USUg SfWfZW bgf ha fSYWdbb

I ZWV

5 e fZW bgf USbSUfadhSgW

X e fZWUa hWfWlei fUZ YXWgWU

AGF e fZW_Sj_g_ aSVUgdWf

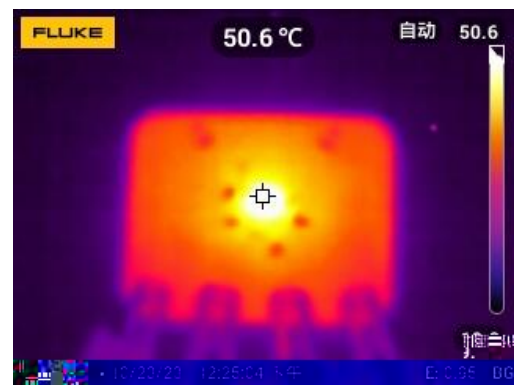
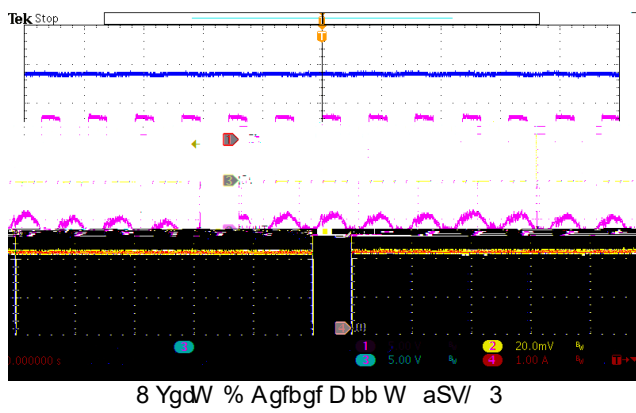
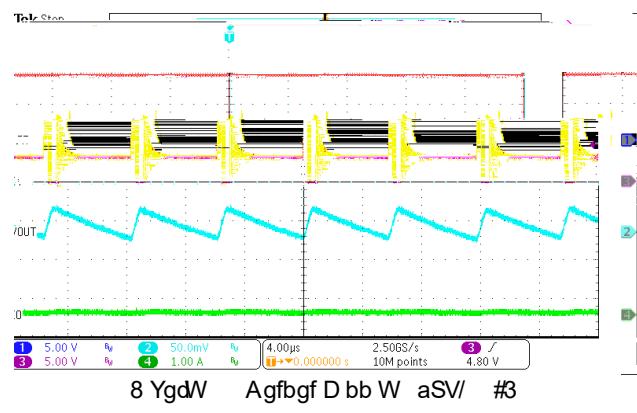
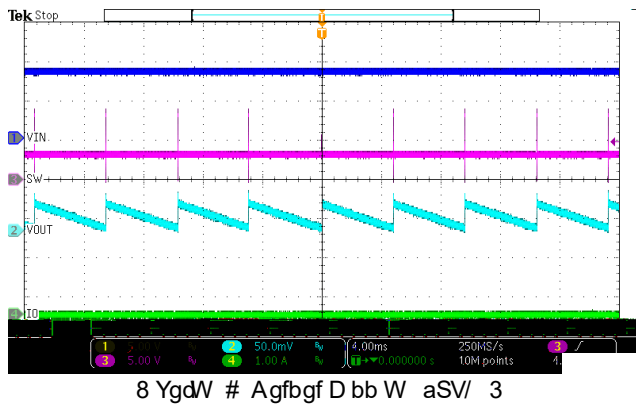
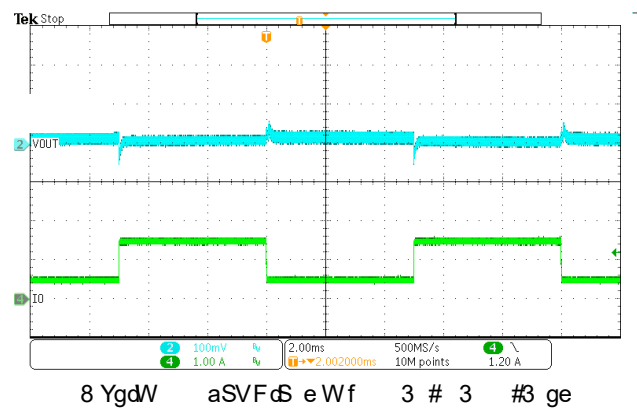
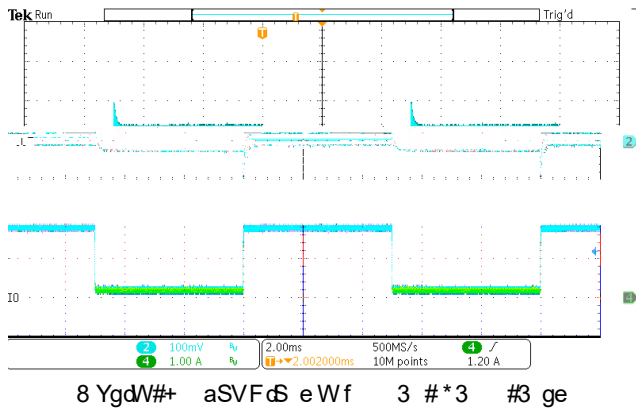
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fZWbai Wlegbb S VfZWH b f_ W WWfa ZShWWagYZ bgf USbSUfS UWfa_S WfZW bgf ha fSYW
dbb WVee fZS #_H 9 WWS S # g8 bgf UWS_ UUSbSUfad e dVla_ W WW Xad_aef aXSbb USfa e
5 ZaaeWfZWdYf USbSUfadhSgWUSd g i fZUa e Wl Y ZYZ USbSUfS UWUWS_ UUSbSUfad 65 TSe VVWUf
i ZUZ ZSe Sefa Y XgWUWa ZWX S WUf hWUSbSUfS UW

3 # 8 UWS_ UUSbSUfad TWU WUW TWl WW 4AAF b S V EI b XadbabWlabWSfa 3 UWS_ U
USbSUfad fZJ D adTWfW WW WUfdu e dVla_ W WW FZWUSbSUfadeZag V ZShWS # H adZYZWlha fSYW
df Y

5F %% XW e YfW bdaYdS_STWagfbgf ha fSYWT ge YS dVefadVh Wl Wl ad D#S VD Se
ezar fZWf bWf b USbSUfadUg f 8 YgdW## GeWVtgSfa (fa USUg SfWfZWdVefadVh Wl hSgV

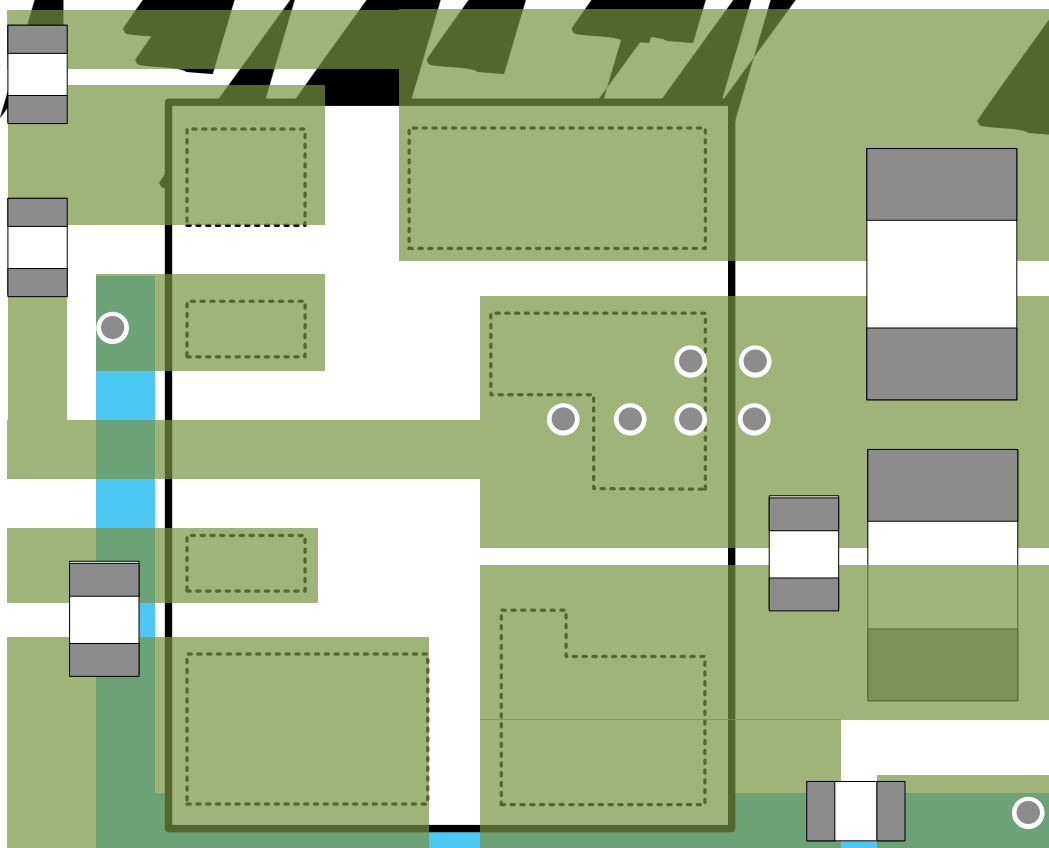
(

H / *



FZWdWg SfadUag VegWdXa_ efST f S V aeWbdTW_ei fZagfUSdWg S agfaXB54 DSVSfa aXZYZ
 XWgWU aeW VgUW7 ea bdbW S agfaXZYZXWgWU ei fUZ YbSfZeVeeWfS _ WZWWYfZ
 S V SdS aXS fdSUe Ua WfWfafa fZVfI b S V Si S e geWS Ydag Vb S Vg WfZWei fUZ Y dWg Sfadfa
 _ _ WUagb Y FZW bgfUSbSUfad Wfafa TWfW UaeWfafWH b S V S 6 b fa dWgUMfZW bgfegbb
 dbb W SUMfZWUSbSUfadSe UaeWfaf b Se bageTWfa dWUWZYZXWgU d Y YhafSYWa EI b Se
 i W 8 YgdW & efZWdWUa_ WWWW S agfaXEF %%

FZW S agf WWe TWVa Wi fZi WUa e Wfafa XWfZU S 3 SdWfab W Ydag Vb S Wge Y_g W
 fZW S h Se e geW fa _ bdbWfZWfZW Veebafa FZWfafa_ S YdeS S Ydag Vb S WUa WfWfafa
 fab S W Ydag VT h Se



8 YgdW B54 S agf 7jS_b W

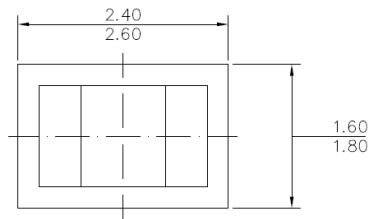
FZW_Sj_g_5 g Ufa fW_bWsfgdVezag V TWdVfdUWfa # 5 g Wd ad_S abWsf YUa Vfa e 5SugSfW
fZW_Sj_g_S ai STWVeebSfa B6_sj S V Wb fZWfSugS bai WdVeebSfa Vee fZS adWgS fa B6_sj FZW
_Sj_g_bai WdVeebSfa _f e Wd W ge Y7cgSfa +

i ZWdW

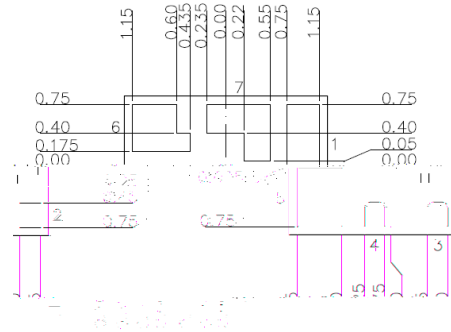
F3 efZW_Sj_g_S_TWffW_bWsfgdVad fZWSbb USfa
D < efZWg Ufa fa S_TWffZW_S dVefS UW

FZWdW g Ufa fa S_TWffZW_S dVefS UWD < aXfZWbSU SYWYdVf WbWVe a fZWB54 f bW S agf
fZW_S bSVUa WUfa S VWh d _WfS Xufad Ge YfZU B54 UabbWfS Vea Wd YfZW9 6 fa S SdWYag V
b SfWWZS UWfZWfZW_S bWad S UW Ge Y_adVh Se Ua WUfe fZWYd V b SfWa fZWfab S V S V Taffa_
S WdSag VfZW5 i fZagf ea Wd_Se Sea WZS UWfZWfZW_S USbST

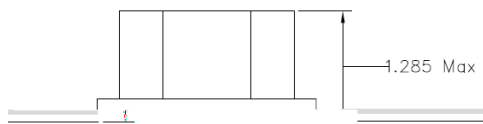
PACKAGE INFORMATION (7L ECLGA)



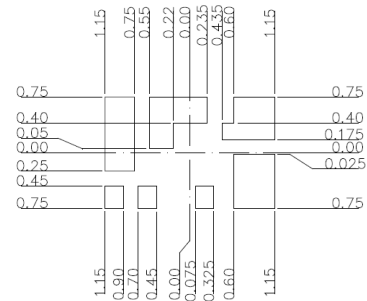
) 75 93 FAB H 71



) 75 93 4AFFA H 7I



) 75 93 E 67 H 7I



) 75 93 D75A 7 676 3 6 B3FF7D

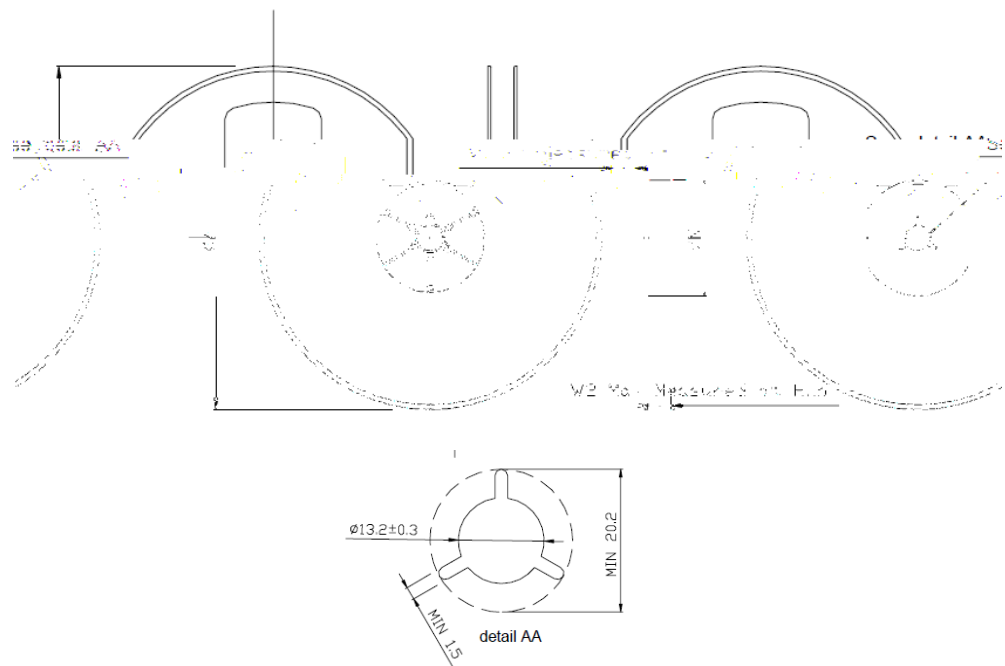
6d Y b d a b a e W f a T W _ S W S < 7 6 7 5 b S U S Y W a g f W A h S d S f a
6d Y a f f a e U S W
% 3 V S d V _ W e a e S d W _ _ W W e
& F Z W i S b S V e Z S T W e a W d W a f Z W T a S d /
6 _ W e a e a X W i b a e W b S V a T a f f a _ a X b S U S Y W W a a f U g W W _ a V X S e Z
(5 a f S U f B 5 4 T a S d / X T d U S f a X d _ _ g _ e a W d _ S e i W T f a W S U W e T W i W W f Z W b e

#)

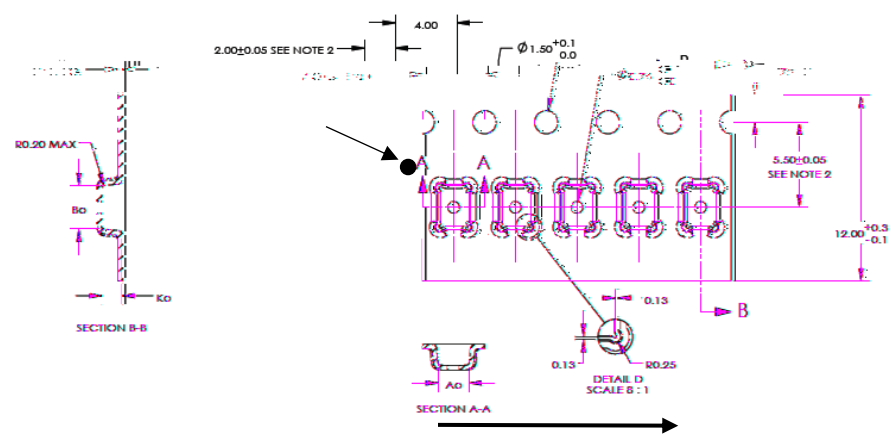
#8 aad 4g V Y# KSdV%6% DaSV : SVS 6 efdUf 4W Y# +
(# (&))+ (83J, *(# (&))+* (i i i e Ua fWfUa_ E Ua 5a fWf #



TAPE AND REEL INFORMATION



	#) (	#) *	%%
	*	(	(
	# &		#&&
FKB7I 6F:		#	



	# +		#
	)	*	+
	# %	# %	# &