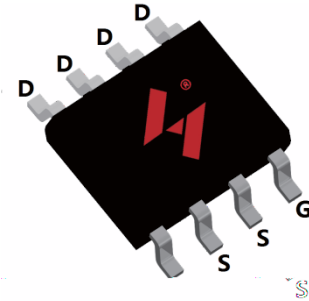


P-Channel Enhancement Mode MOSFET

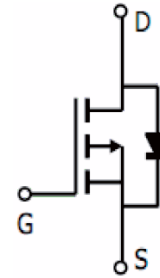
: YUh i fY8YgWf]dh]cb

D]b' 8YgWf]dh]cb

- 30V/-12A
- $R_{DS(ON)} = 10.8\text{ m}\Omega$ (typ.) @ $V_{GS} = -10V$
- $R_{DS(ON)} = 14.6\text{ m}\Omega$ (typ.) @ $V_{GS} = -4.5V$
- 100% Avalanche Tested
- Reliable and Rugged
- Halogen Free and Green Devices Available (RoHS Compliant)



SOP8L



P-Channel MOSFET

5dd`jWUh]cbg`

- Power Management - [; DC/DC
- Switching application

CfXYf]b [`UbX' AuF_]b [`=bZcf a Uh]cb

S HY12P03 YYXXXJWW G	Package Code S: SOP-8L Date Code YYXXX WW	Assembly Material G: Halogen Free
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P [c^kA PWCEYQA | ^æâÈ-!^A] : [a ~ & c^A & [} cæâ } A { [[ââ } * A & [{] [~ } a • Dââ^Aæccæ&@A { æc^iææ | • Aæ } âA F€€ A { æcc^A cã } A] | æc^A
 V^! { âÈPæcã [] A-â } â • @L , @â&@Aæ!^A-~ || ^A & [{] | iææ } cA , æc@AÜ [PÙÈA PWCEYQA | ^æâÈ-!^A] : [a ~ & c^A { ^cA [iA^æ&^Aâc@^A | ^æâÈ
 Ø | ^A^! ^ ~ â! ^È { ^ } c^A [-AQUÔDRÒÖÔÂREÛVÖÈ€€A- [iA T ÛŠA&|æ••â-â&æcã [} AæcA | ^æâÈ-!^A] ^æ\A | ^- [, ^c^ { } ^! æc^ i^ÈA
 PWCEYQA | ^æâÈ-!^A } ^ • A • Ö | ^ } + c^A [A { ^æ } A | ^æâÈ-!^A ÇÜ [PÙA & [{] | iææ } cD Aæ } âA @æ | * ^ } A-! ^A ÇÓ! A : iA Ô | Aâ [^ • A } [cA^æ&^Aâ
 J€€] { Aâ^A , ^â * @cã } A @ [{ [* ^ } ^ [~ • A { æc^iææ | Aæ } âA c [cæ | A [-A Ó! Aæ } âA Ô | Aâ [^ • A } [cA^æ&^Aâ F [€€] { Aâ^A , ^â * @cDÈA

PWCEYQA | ^æâÈ-!^A } ^ • A • Ç^ • A c@^A iâ * @cA c [A { æ^A & @æ } * ^ • ÈA & [i! ^ & cã [] • ÈA^ } @æ } & ^ { ^ } c^ÈA { [ââ-â&æcã [] • ÈAæ } âAâ [] : [Ç^ { ^A } c^A c [A
 c@â • A] iÈ [a ~ & cAæ } âD [iA c [A c@â • Aâ [& ~ { ^ } cAæcAæ } ^A cã { ^A , æc@ [~ cA } [cã & ^È

<M%&D\$' S

5Vgc` i hY' AUI] a i a 'FUh]b [g`

Gma Vc`	DUfUa YhYf	FUh]b[I b]h
---------	------------	--------	-------

<M%&D\$' S

9`YWhf]WU`7 \UfUWhYf]gh]Wg`fl7 cbh"L` (Tc =25°C Unless Otherwise Noted)

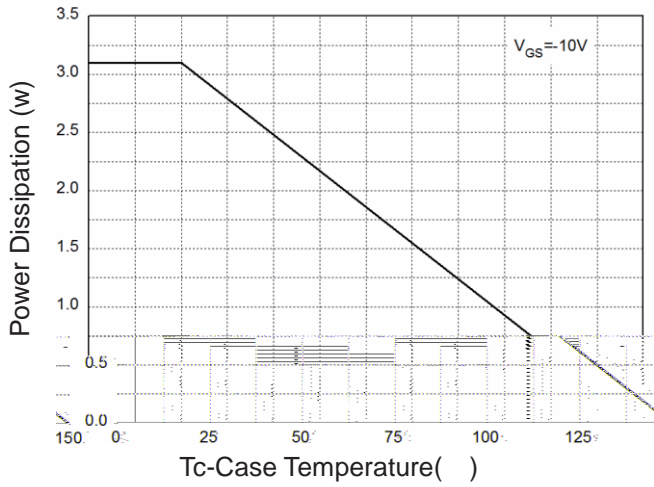
Gm a Vc`	DUfU a YhYf	HYgh`7 cbX]h]cbg	<M%&D\$'			I b]h
			A]b	Hmd"	AUI	
8mbU a]W`7 \UfUWhYf]gh]Wg						
R _G	Gate Resistance	V _{GS} =0V, V _{DS} =0V, F=1 MHz	-	2.4	-	Ω
C _{iss}	Input Capacitance	V _{GS} =0V, V _{DS} =-15V, Frequency=1.0MHz	-	2350	-	pF
C _{oss}	Output Capacitance		-	330	-	
C _{rss}	Reverse Transfer Capacitance		-	139	-	
t _{d(ON)}	Turn-on Delay Time	V _{DD} =-15V, R _G =1 I _{DS} =-12A, V _{GS} =-10V	-	11	-	ns
T _r	Turn-on Rise Time		-	9	-	
t _{d(OFF)}	Turn-off Delay Time		-	25	-	
T _f	Turn-off Fall Time		-	13	-	
; UhY`7 \Uf [Y`7 \UfUWhYf]gh]Wg						
Q _g	Total Gate Charge	V _{DS} = -24V, V _{GS} = -10V I _D = -12A,	-	34	-	nC
Q _{gs}	Gate-Source Charge		-	4.5	-	
Q _{gd}	Gate-Drain Charge		-	8	-	

Note: *Pulse test pulse width 300us duty cycle 2%

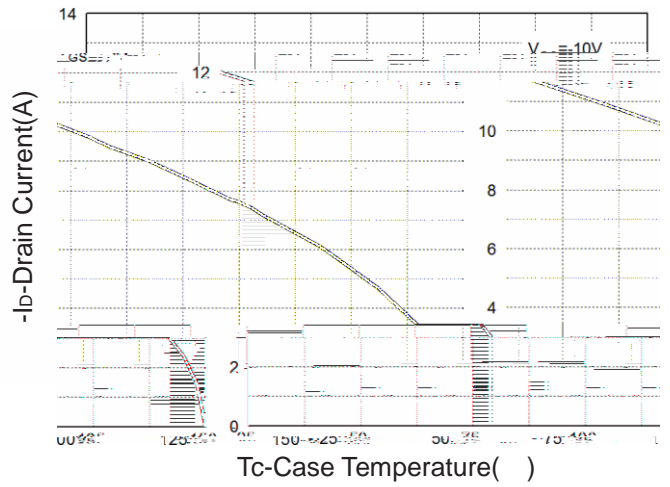
Power MOSFET

Power Dissipation

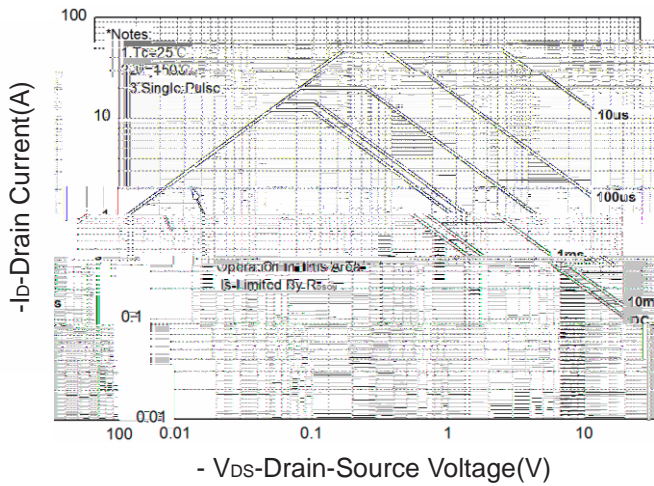
Power Dissipation vs. Case Temperature



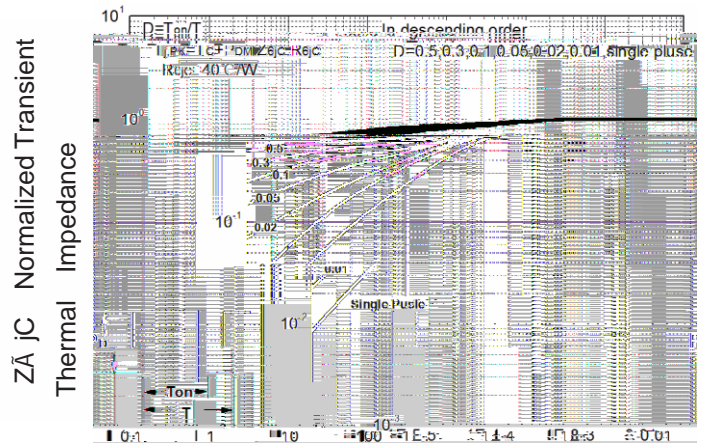
Drain Current vs. Case Temperature



Drain Current vs. Drain-Source Voltage

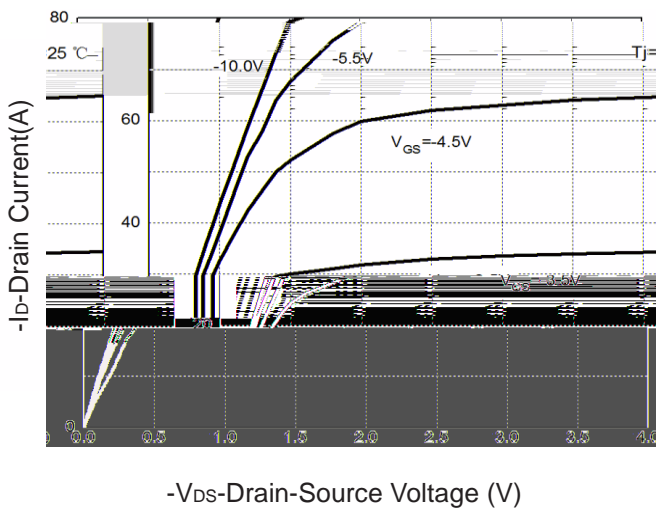


Normalized Transient Thermal Impedance

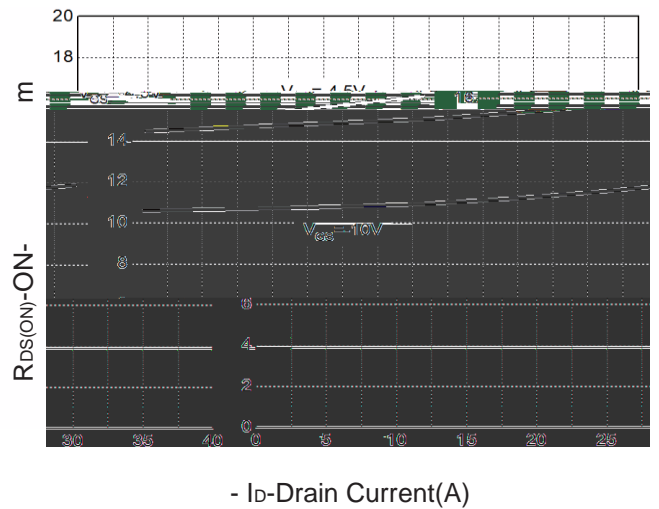


Maximum Effective Transient Thermal Impedance, Junction-to-Case

Drain Current vs. Drain-Source Voltage



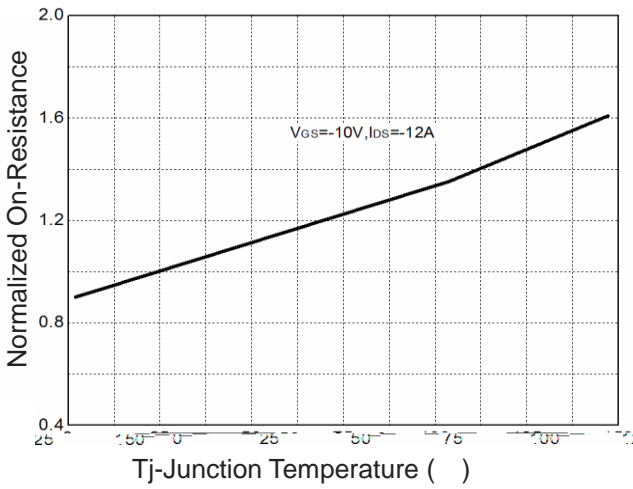
On-Resistance vs. Drain Current



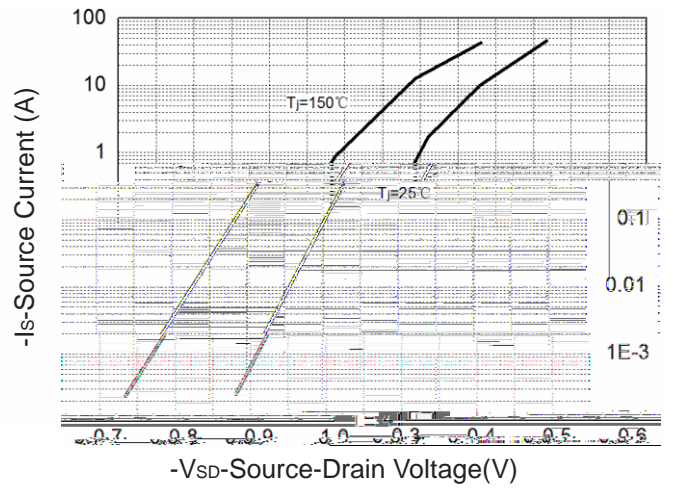
<M%&D\$' S

Hmd]WU` CdYfUh]b [' 7 \UfUWhYf]gh]Wgfl7 cbh"Z

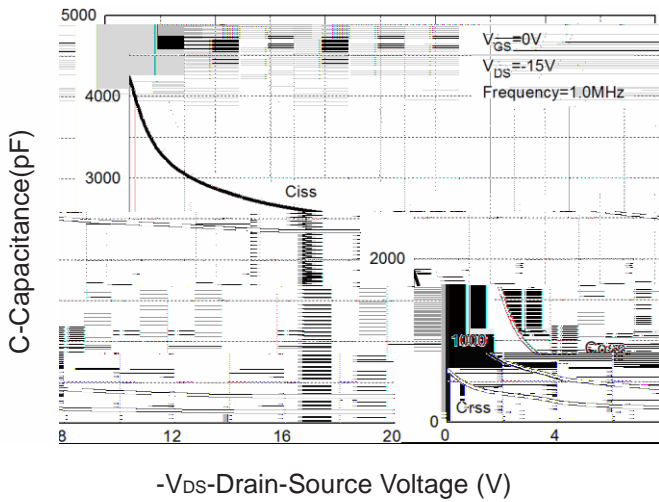
:][i fY'+. Cb!FYg]ghUbWY' jg"HY a dYfUh i fY' ...



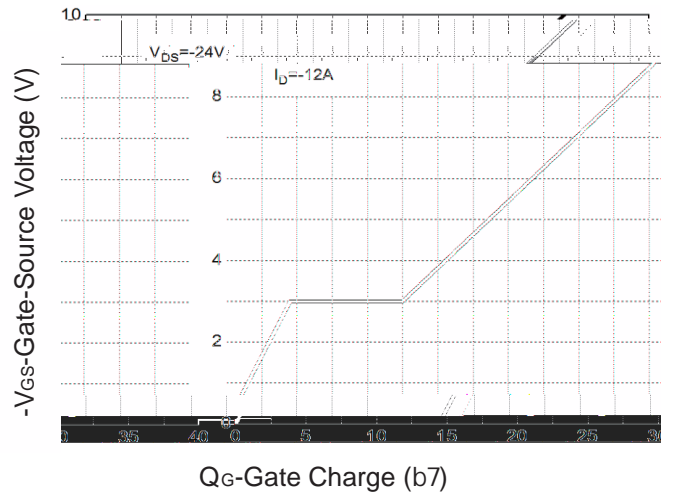
:][i fY', . Gc i fWY!8fU]b'8]cXY' : cfkUfX



:][i fY' -. 7UdUW]hUbWY' 7 \UfUWhYf]gh]Wg'

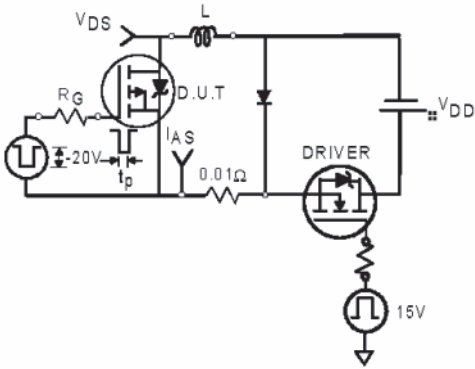


:][i fY'%\$. ; UhY' 7 \Uf [Y' 7 \UfUWhYf]gh]Wg'

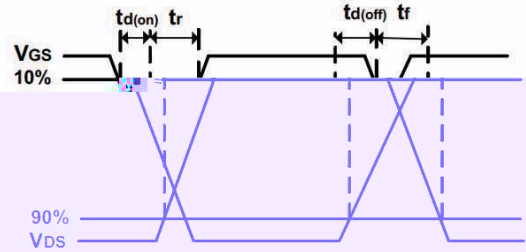
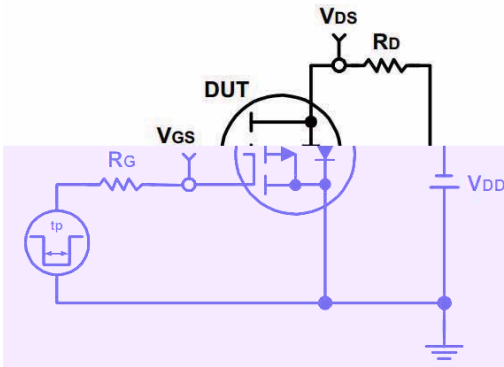


<M%&D\$' S

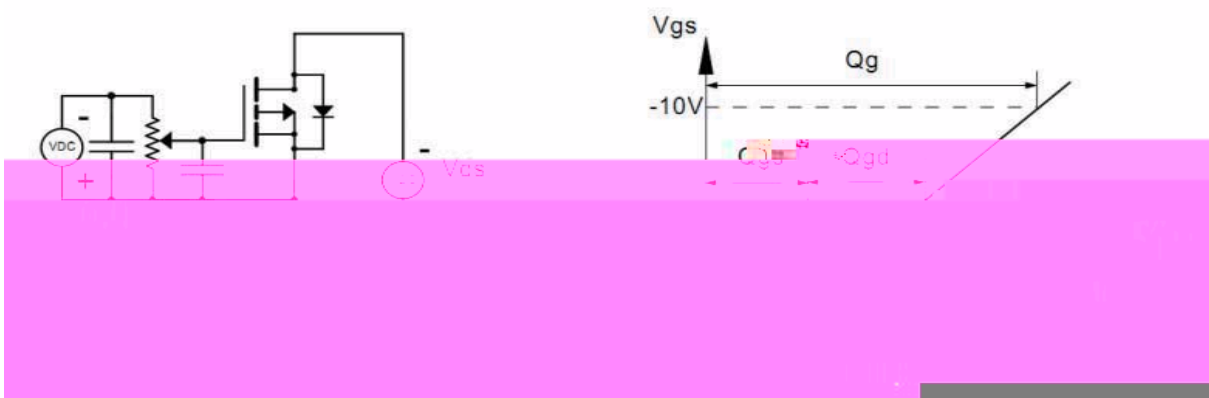
5 jU`UbW\Y`HYgh'7]fW i]h



Gk]hW\]b['H] a Y`HYgh'7]fW i]h



; UhY'7 \Uf [Y`HYgh'7]fW i]h



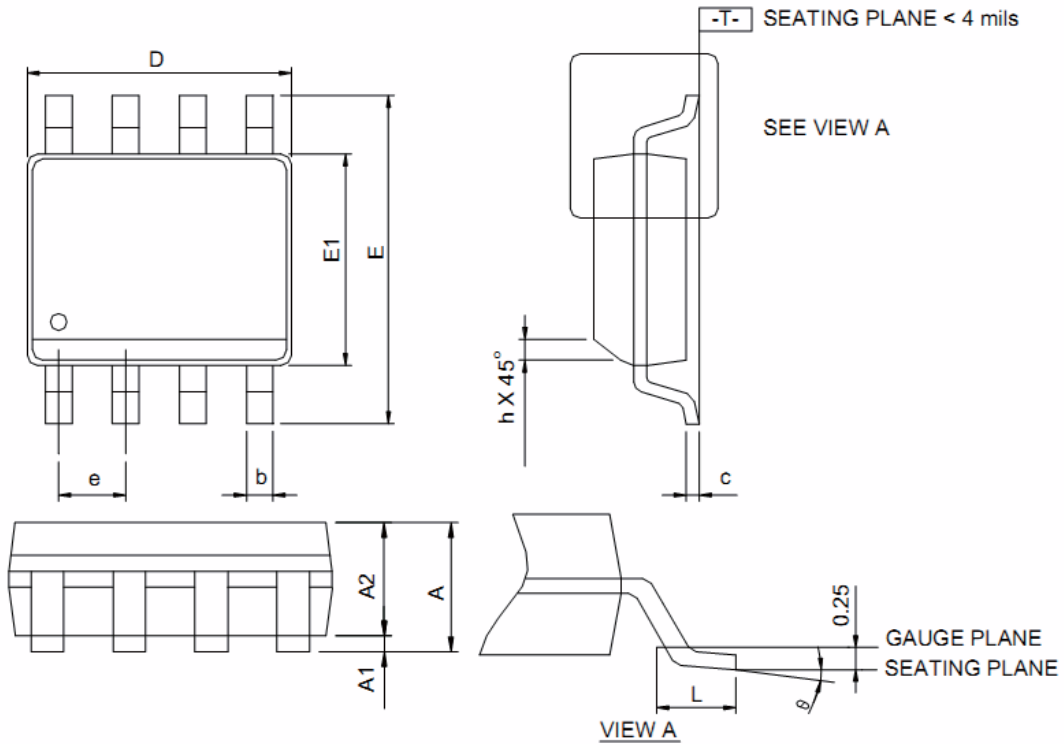
SOP-8L

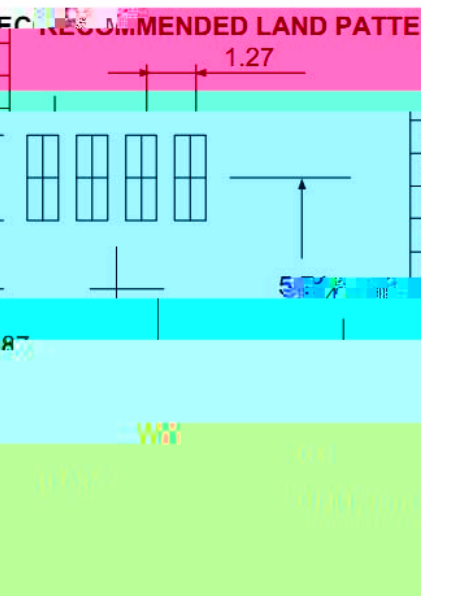
8-Pin Small Outline Package

DUW_U[Y'HmdY	I b]h	E i Ubh]hm
SOP-8L	Reel	2500

DUW_U[Y'=bZcf a Uh]cb

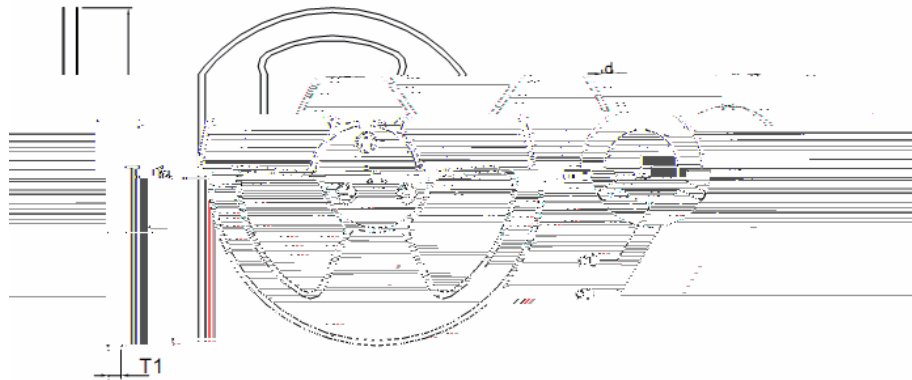
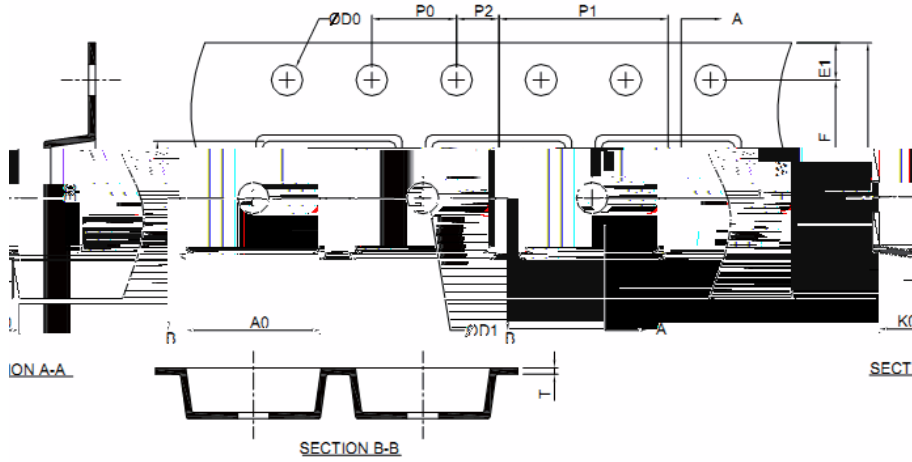
GCD!,@



DIMENSION	SOP8L				RECOMMENDED LAND PATTERN
	MILLIMETERS		INCHES		
	MIN.	MAX.	MIN.	MAX.	
A	-	1.75	0.069	-	
A1	0.10	0.25	0.004	0.010	
A2	1.25	-	0.049	-	
b	0.31	0.51	0.012	0.020	
c	0.17	0.25	0.007	0.010	
D	4.80	5.00	0.189	0.197	
E	5.80	6.20	0.228	0.244	
E1	3.80	4.00	0.150	0.157	

<M%&D\$' G

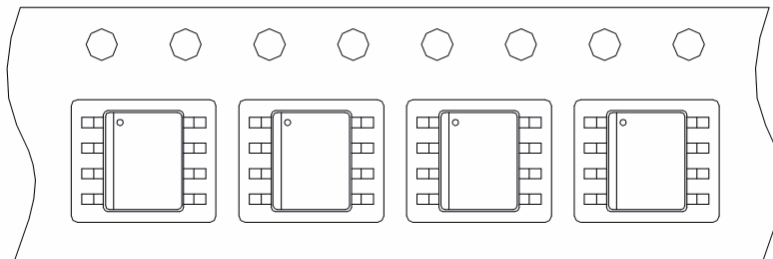
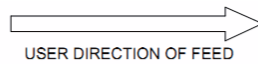
7Uff]Yf'HUdY' / 'FYY' 8] a Ybg]cbg



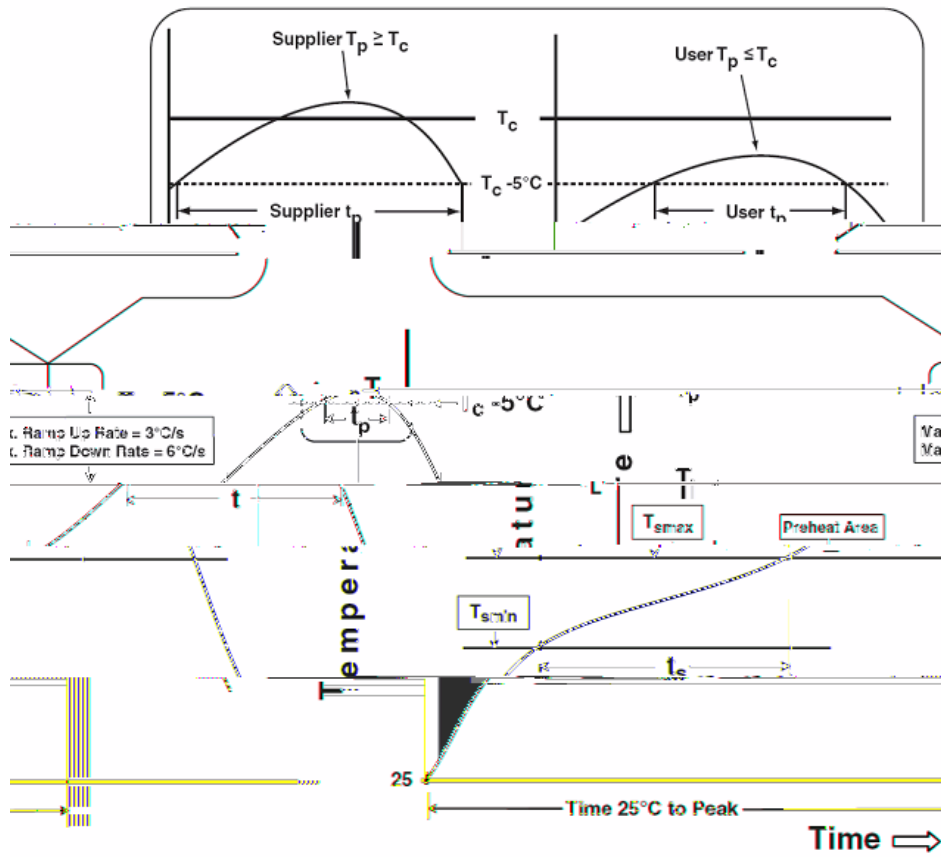
Application	A	H	T1	C	d	D	W	E1	F
SOP8L	330.0 2.00	50 MIN.	12.4+2.00 -0.00	13.0+0.50 -0.20	1.5 MIN.	20.2 MIN.	12.0 0.30	1.75 0.10	5.5 0.05

(mm)

HUd]b [' 8]fYWh]cb' =bZcf a Uh]cb



7`Ugg]Z]WUh]cb`DfcZ]`Y



<M%&D\$' S

7`Ugg]Z]WUh]cb`FYZ`ck`DfcZ]`Yg

DfcZ]`Y` : YUhi fY	Gb!DV`9 ihYWh]W` 5ggYa V`m	DV! : fYY` 5ggYa V`m
DfY\YUh` / `GcU_		
Temperature min (T_{smin})	100 °C	150 °C
Temperature max (T_{smax})	150 °C	200 °C
Time (T_{smin} to T_{smax}) (t_s)	60-120 seconds	60-120 seconds
Average ramp-up rate (T_{smax} to T_P)	3 °C/second max.	3°C/second max.
Liquidous temperature (T_L)	183 °C	217 °C
Time at liquidous (t_L)	60-150 seconds	60-150 seconds
Peak package body Temperature (T_p)*		

7 i g h c a Y f ' G Y f j j W Y '

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