



MOS Controlled Diode

PRODUCT SUMMARY

V _{RRM}	I _O	V _F (MAX) @ 25°C	I _R (MAX) @ 25°C
60V	20A	0.54V	0.5mA

FEATURES

- Low Profile Design for Smart Phone Charger
- Ideal for SMT Mounting
- Low forward voltage drop
- High forward surge capability
- Excellent High Temperature Stability

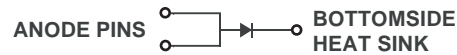
TO-277



Top View



Bottom View



ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{RRM}	Peak Repetitive Reverse Voltage	60	V
V _{RWM}	Working Peak Reverse Voltage	60	V
V _{RM}	DC Blocking Voltage	60	V
V _{R(RMS)}	RMS Reverse Voltage	42	V
I _O	Average Rectified Output Current	20	A
I _{FSM}	Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	200	A
E _{AS}	Non-Repetitive Avalanche Energy (T _J = 25°C, I _{AS} = 14, L = 5mH)	340	mJ
P _{ARM}	Repetitive Peak Avalanche Energy	32000	W

THERMAL CHARACTERISTICS

Symbol	Parameter	Value	Unit
R _{θJA}	Thermal Resistance, Junction-to-Ambient	70	°C/W
T _J	Operating Temperature Range	-55 to 150	°C
T _{STG}	Storage Temperature Range	-55 to 175	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V _F	Forward Voltage Drop	I _F = 20A, T _J = 25°C		0.49	0.53	V
		I _F = 20A, T _J = 125°C		0.47	0.52	V
I _R	Leakage Current	V _R = 60V, T _J = 25°C		180	500	uA
		V _R = 60V, T _J = 125°C			100	mA
C _T	Total Capacitance	V _R = 60V, f = 1MHz		350		pF

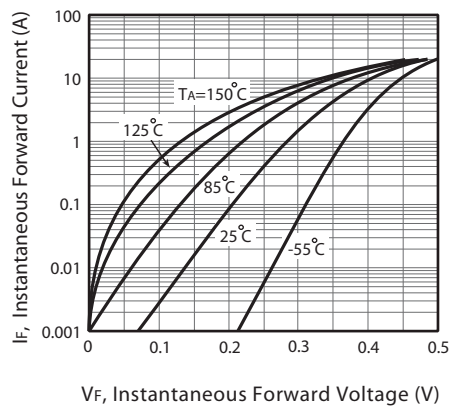


Figure 1. Typical Forward Characteristics

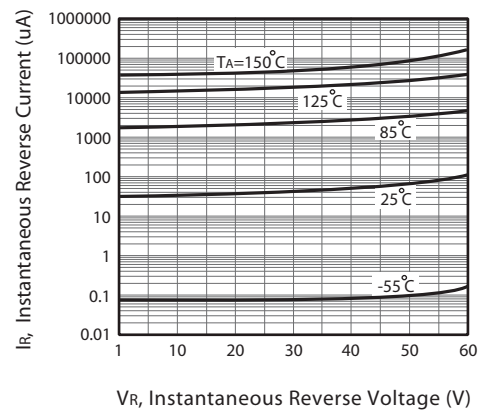


Figure 2. Typical Reverse Characteristics

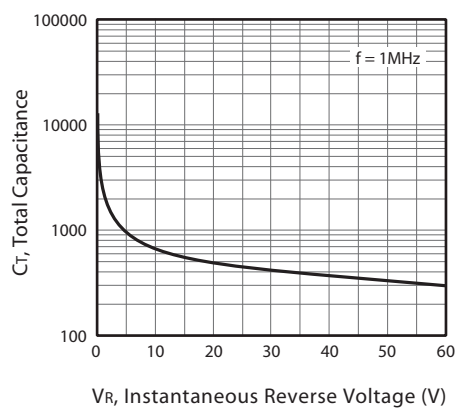


Figure 3. Total Capacitance vs. Reverse Voltage

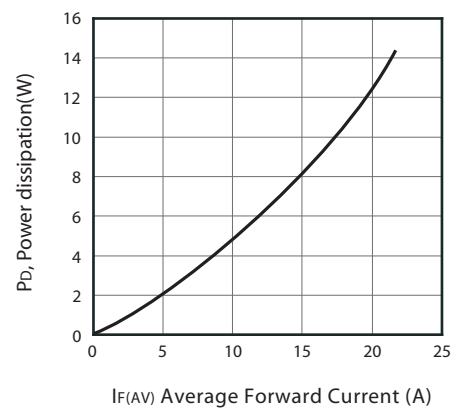


Figure 4. Forward Power Dissipation

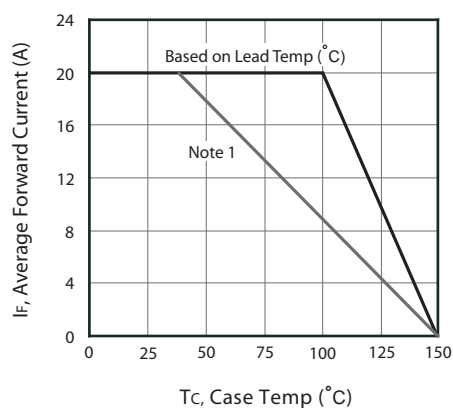


Figure 4. Forward Power Dissipation

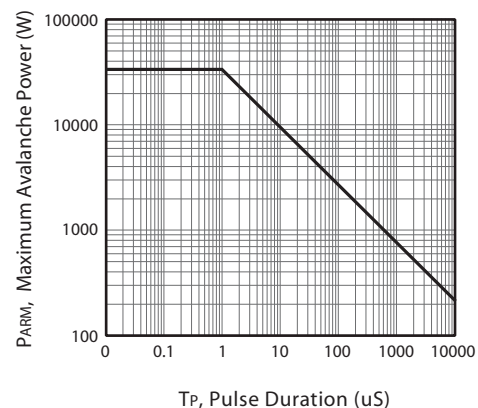


Figure 6. Maximum Avalanche Power Curve

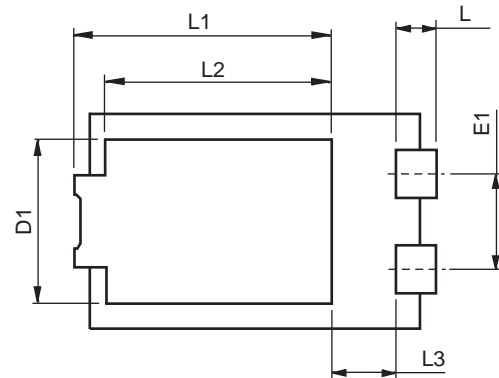
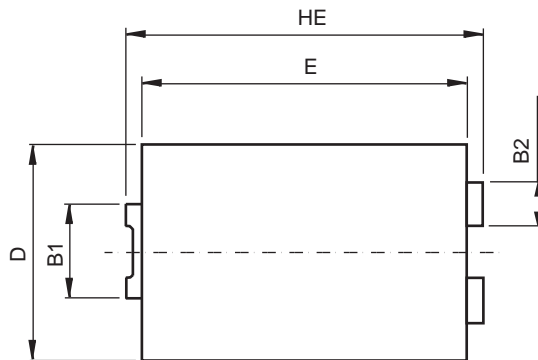
Note : 1.Device mounted on FR-4 substrate, 2oz copper.

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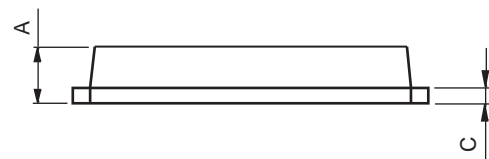
Ver 1.0

PACKAGE OUTLINE DIMENSIONS

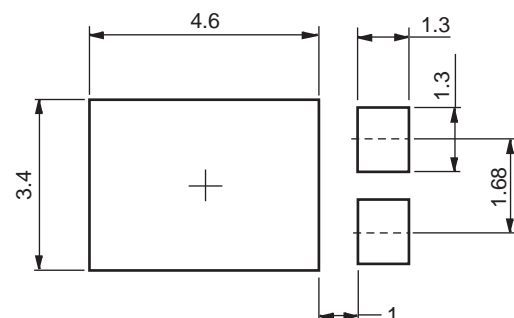
TO-277



SYMBOLS	MILLIMETERS	
	MIN.	MAX.
HE	6.40	6.60
E	5.60	5.80
D	4.10	4.30
B1	1.70	1.90
B2	0.80	1.00
A	1.05	1.20
C	0.30	0.40
L	0.85	1.10
L1	4.20	4.40
L2	3.52 Typ.	
L3	1.10	1.40
D1	3.00	3.30
E1	1.86 Typ.	



Mounting Pad Layout (unit:mm)

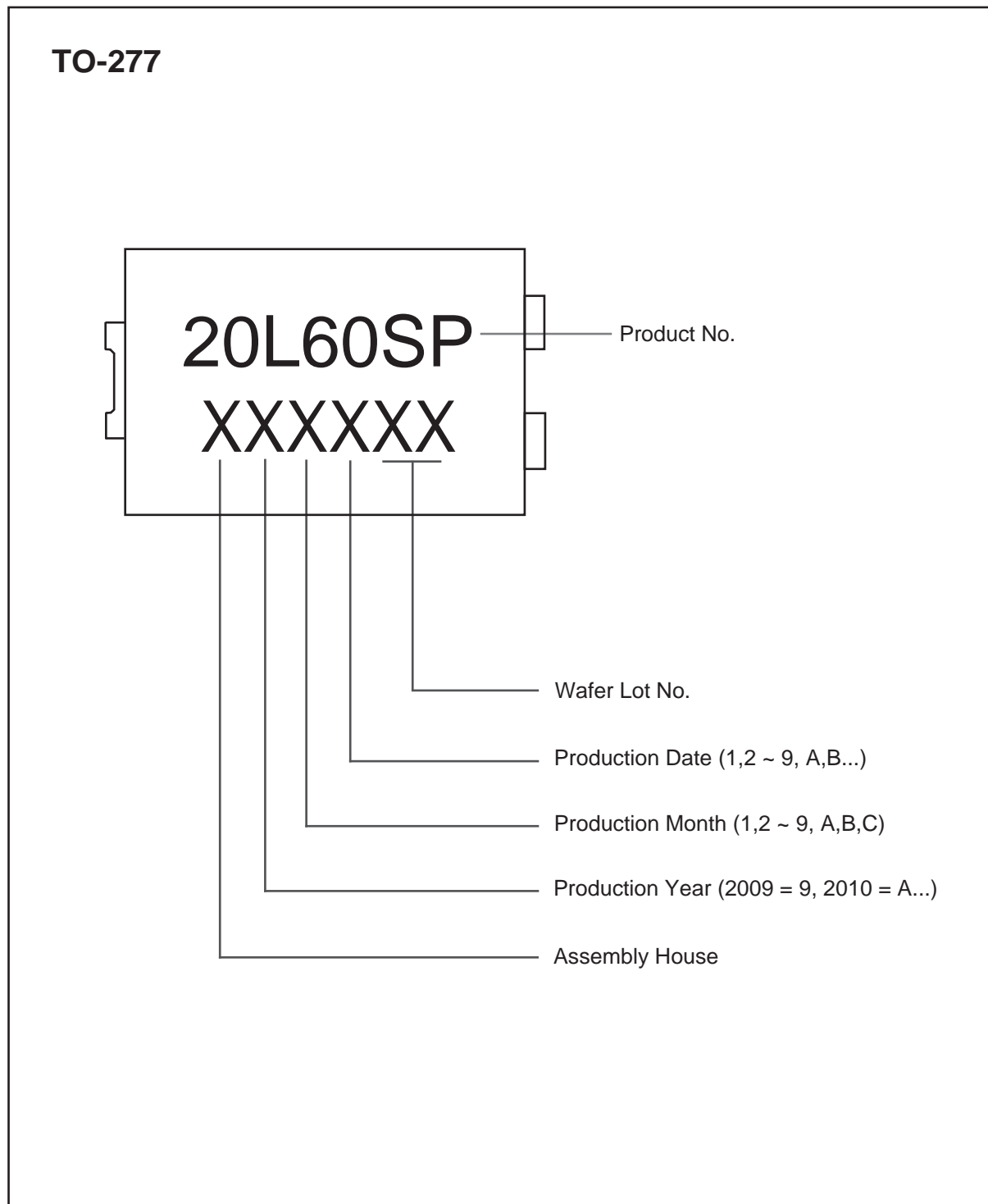


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SMD20L60SP

Ver 1.0

TOP MARKING DEFINITION



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