

Features

- Halogen Free. "Green" Device (Note 1)
- High Surge Forward Current Capability
- Low Power Loss and High Efficiency
- Lead Free Finish/RoHS Compliant(Note 2)("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical thermal Resistance:18 °C/W Junction to Case(Note 3)
- Typical thermal Resistance:40 °C/W Junction to Ambient(Note 3)

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SMPA845L	845L	45V	31.5V	45V

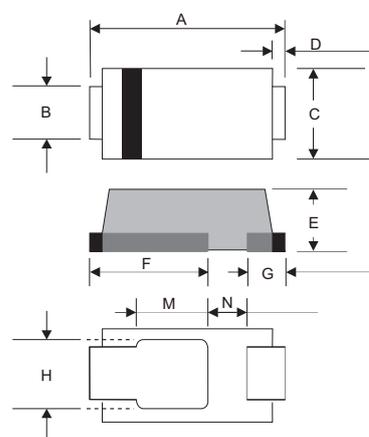
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I_O	8A	$T_C = 70^\circ C$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, Half Sine
Forward Voltage	V_F	0.51V(Typ.) 0.55V(Max.) 0.45V(Typ.)	$I_F=8A \quad T_J=25^\circ C$ $I_F=8A \quad T_J=25^\circ C$ $I_F=8A \quad T_J=125^\circ C$
Reverse Current	I_R	20µA(Typ.) 0.1mA(Max.) 30mA(Max.)	$V_R=45; \quad T_J=25^\circ C$ $V_R=45; \quad T_J=25^\circ C$ $V_R=45; \quad T_J=125^\circ C$
Typical Junction Capacitance	C_J	320pF	Measured at 1.0MHz, $V_R=4.0V$

- Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
 2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
 3. Mounted on FR 4 PCB copper, recommended pad layout.

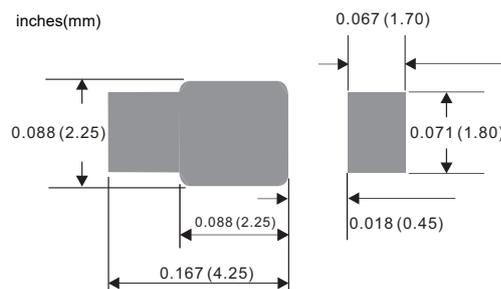
**8 Amp
Schottky Barrier
Rectifier
45 Volts**

SMPA



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.197	0.213	5.00	5.40	
B	0.045	0.069	1.15	1.75	
C	0.094	0.110	2.40	2.80	
D	0.018		0.45		
E	0.037	0.041	0.95	1.05	
F	0.140		3.55		
G	0.039		1.00		
H	0.063	0.079	1.60	2.00	
M	0.075	0.091	1.90	2.30	
N	0.022	0.030	0.55	0.75	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

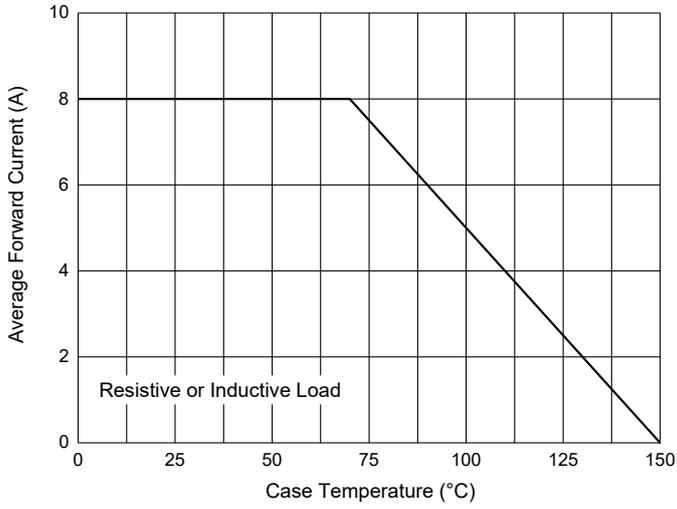


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

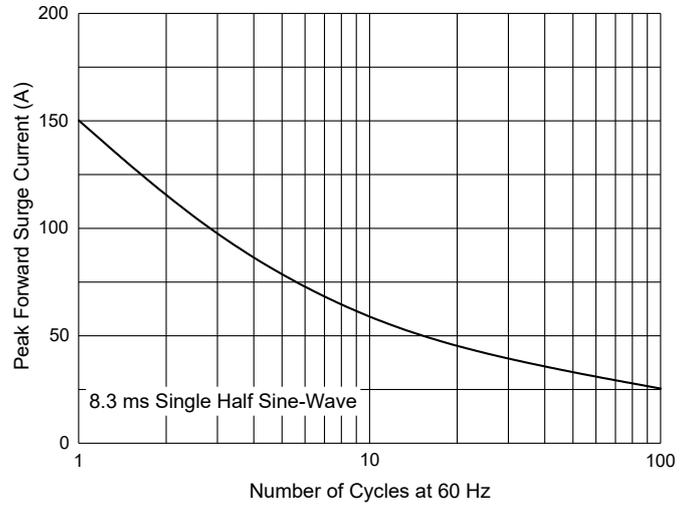


Fig. 3 - Typical Forward Characteristics

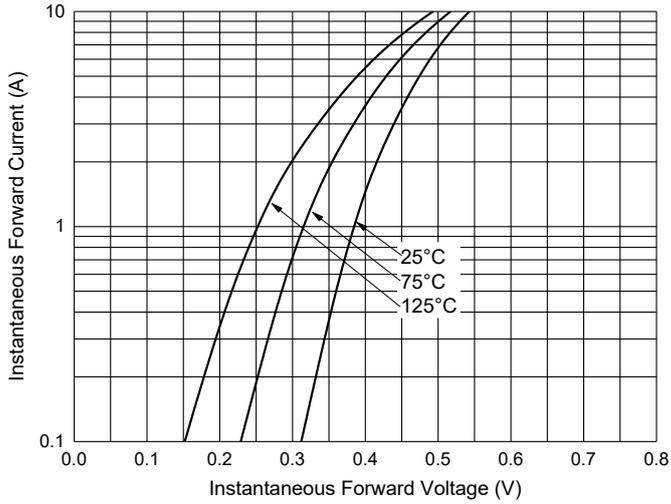
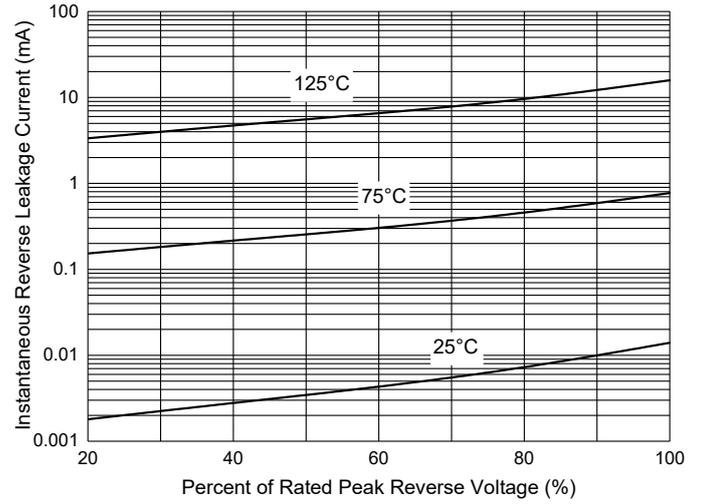


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel

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