Features

- AEC-Q101 Qualified
- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- High Surge Current Capability
- Low Leakage
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

8 Amp Glass Passivated Rectifier 50 to 1000 Volts

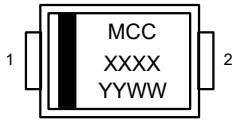
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		S8AL HE3	S8BL HE3	S8DL HE3	S8GL HE3	S8JL HE3	S8KL HE3	S8ML HE3	
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ T_L=50°C	$I_{F(AV)}$	8							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	200							A
I^2t Rating for Fusing @1ms≤t≤8.3ms	I^2t	166							A^2s

Marking code

Part Number	Marking code
S8ALHE3	S8AL
S8BLHE3	S8BL
S8DLHE3	S8DL
S8GLHE3	S8GL
S8JLHE3	S8JL
S8KLHE3	S8KL
S8MLHE3	S8ML

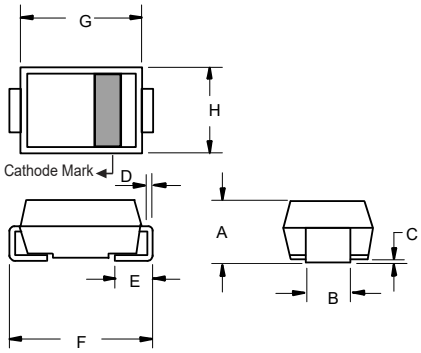
Internal Structure

Pin	Description	Simplified outline	Graphic symbol
1	Cathode	 XXXX = Marking code YYWW = Date Code	
2	Anode		

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

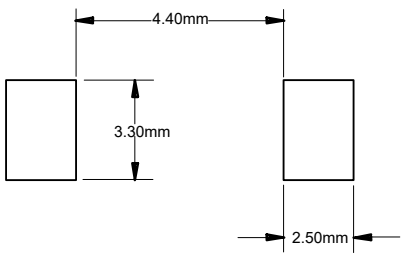
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

SMC (DO-214AB)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.108	0.128	2.75	3.25	
C	0.002	0.008	0.051	0.203	
D	0.006	0.012	0.152	0.305	
E	0.030	0.060	0.76	1.52	
F	0.305	0.320	7.75	8.13	
G	0.260	0.280	6.60	7.11	
H	0.220	0.245	5.59	6.22	

Suggested Solder Pad Layout



Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$Rth_{(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		15		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		65		°C/W

Note:
1.Mounted on P.C.B. with 16mm*16mm copper pad areas.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F=8A;T_J=25°C		0.94	1.05	V
Reverse Current	I_R	at Rated V_R;T_J=25°C at Rated V_R;T_J=100°C			5 100	uA
Junction Capacitance S8ALHE3~S8JLHE3 S8KLHE3~S8MLHE3	C_J	V_R=4V;f=1MHz;T_J=25°C		70 60		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

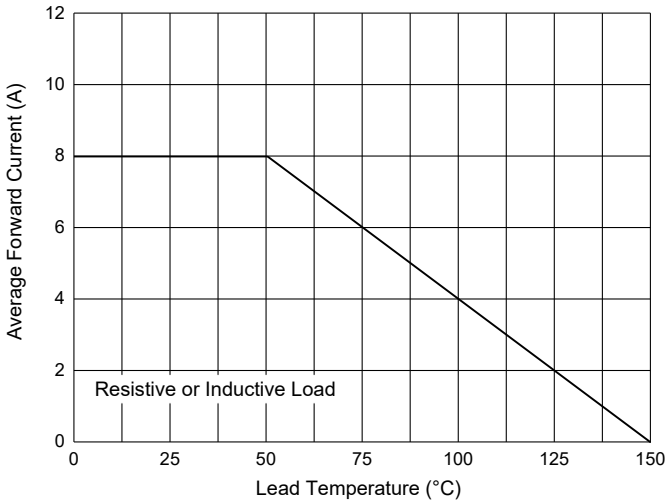


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

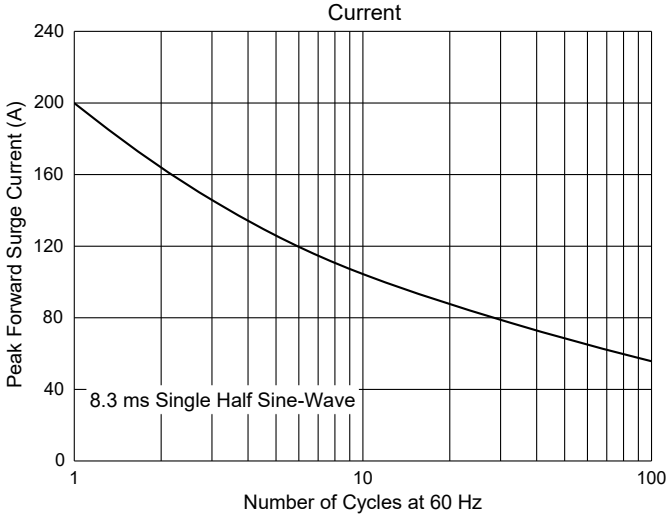


Fig. 3 - Typical Forward Characteristics

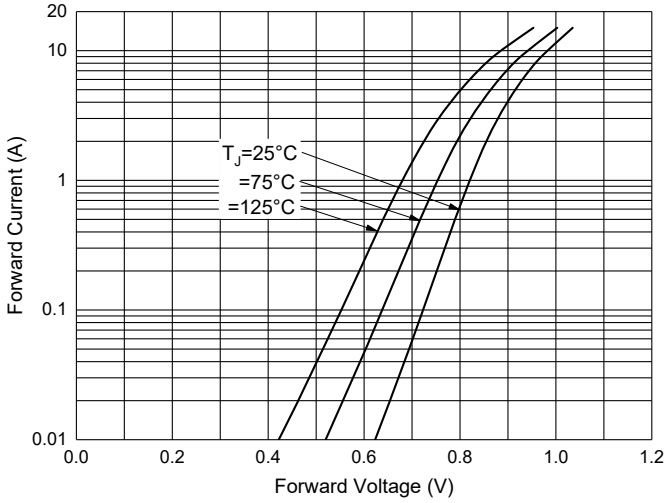


Fig. 4 - Typical Reverse Leakage Characteristics

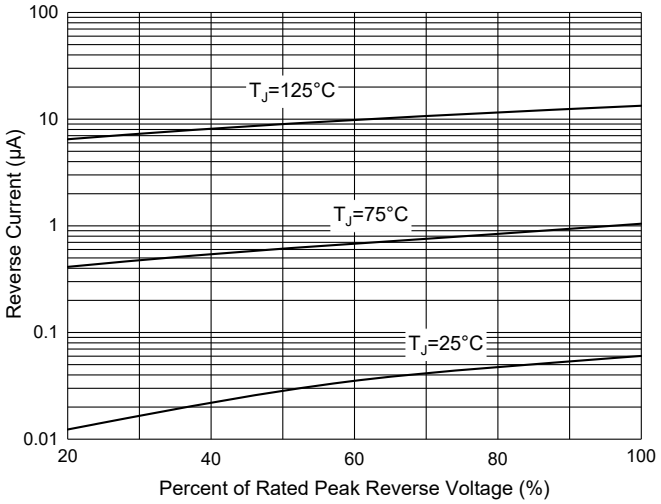
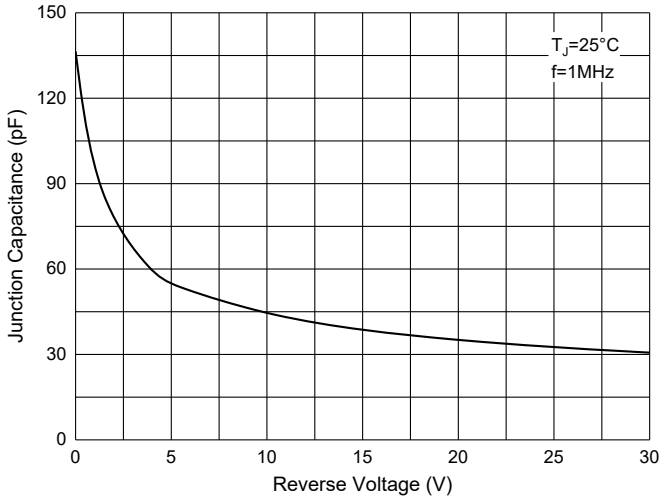


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel