

#### **Features**

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Low Forward Voltage and High Current Capability
- 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(Note 2): 125°C/W Junction to Ambient
- Typical Thermal Resistance(Note 2): 30°C/W Junction to Lead
- Typical Thermal Resistance(Note 2): 40°C/W Junction to Case

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SMD14PE	14	40V	28V	40V

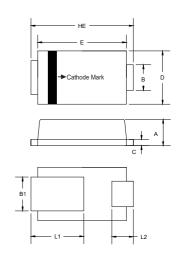
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	Fig.1
Peak Forward Surge Current	I <sub>FSM</sub>	30A	8.3ms,Half Sine
Instantaneous Forward Voltage	$V_{F}$	0.42V(Typ.) 0.48V(Typ.) 0.52V(Max.) 0.32V(Typ.) 0.41V(Typ.)	$I_F$ =0.5A; $T_J$ =25°C $I_F$ =1.0A; $T_J$ =25°C $I_F$ =1.0A; $T_J$ =25°C $I_F$ =0.5A; $T_J$ =125°C $I_F$ =1.0A; $T_J$ =125°C
DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	50μA(Max.) 7.5μA(Typ.) 10mA(Max.) 3mA(Typ.)	T <sub>J</sub> =25°C T <sub>J</sub> =125°C

<sup>\*</sup>Pulse Test: Pulse Width 300  $\mu$ sec, Duty Cycle 1% Note :

# 1 Amp Schottky Rectifier 40 Volts

## SOD-323HE



DIMENSIONS						
DIM	INCHES		MM		NOTE	
	MIN	MAX	MIN	MAX	NOIL	
Α	0.022	0.030	0.550	0.750		
В	0.021	0.029	0.530	0.730		
B1	0.028	0.036	0.720	0.920		
С	0.004	0.010	0.100	0.250		
D	0.047	0.055	1.200	1.400		
E	0.081	0.089	2.050	2.250		
L1	0.047	0.055	1.200	1.400		
L2	0.016	0.024	0.400	0.600		
HE	0.094	0.102	2.400	2.600		

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

<sup>2.</sup>  $R_{\theta JA}$  and  $R_{\theta JL}$  Mounted on PCB With 6.0 mm x 6.0 mm Copper Pad Areas  $R_{\theta JC}$  is measured at the top center of the body.



0.1 0.0

0.1

### **Curve Characteristics**

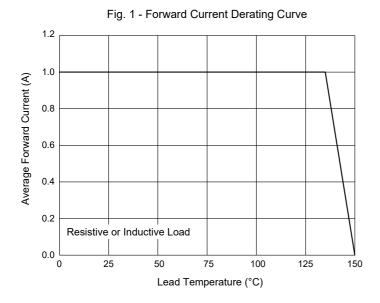


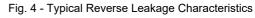
Fig. 2 - Maximum Non-Repetitive Peak Forward Surge
Current

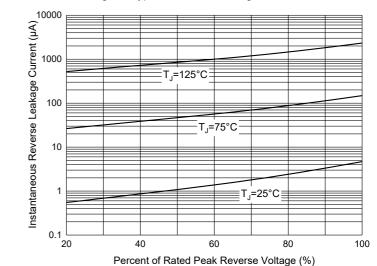
35
30
20
20
15
8.3 ms Single Half Sine-Wave
0
1 10
Number of Cycles at 60 Hz

(A) 1 T<sub>J</sub>=125°C T<sub>J</sub>=75°C T<sub>J</sub>=25°C T<sub>J</sub>=25°C

Instantaneous Forward Voltage (V)

Fig. 3 - Typical Instantaneous Forward Characteristics





0.7

0.8



### **Ordering Information**

Device	Packing	
SMD14PE-TP	Tape&Reel: 4.5 Kpcs/Reel	

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