

#### **Features**

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 2)
- AEC-Q101 Qualified

# **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance(Note 3): 35°C/W Junction to Lead
- Thermal Resistance(Note 3): 85°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
ES1DHE3-L	ES1D	200V	140V	200V
ES1GHE3-L	ES1G	400V	280V	400V
ES1JHE3-L	ES1J	600V	420V	600V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

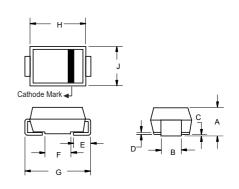
Average Forward Current	I <sub>F(AV)</sub>	1.0A	T <sub>L</sub> =120°C
Peak Forward Surge Current	I <sub>FSM</sub>	30A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage ES1DHE3-L ES1GHE3-L ES1JHE3-L	V <sub>F</sub>	0.95V 1.30V 1.70V	I <sub>F</sub> =1.0A;
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5μΑ 100μΑ	T <sub>J</sub> =25°C; T <sub>J</sub> =125°C
Maximum Reverse Recovery Time	T <sub>RR</sub>	35ns	I <sub>F</sub> =0.5A; I <sub>R</sub> =1.0A; Irr=0.25A
Typical Junction Capacitance ES1DHE3-L ES1GHE3-L~ES1JHE3-L	С	20pF 12pF	Measured at 1.0MHz V <sub>R</sub> =4.0V

Note :1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7a.

- Halogen free "Green" products are defined as those which contain <900ppm bromine,</li>
   <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.</li>
- 3. Mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas.

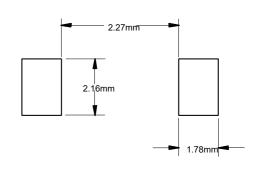
# 1 Amp Super Fast Recovery Rectifier 200 to 600 Volts

# SMA (DO-214AC)



DIMENSIONS						
DIM	INCHES		MM		NOTE	
	MIN	MAX	MIN	MAX	NOTE	
Α	0.075	0.096	1.90	2.44		
В	0.050	0.064	1.27	1.63		
С	0.002	0.008	0.051	0.203		
D		0.020		0.51		
E	0.030	0.060	0.76	1.52		
F	0.065	0.091	1.65	2.32		
G	0.189	0.220	4.80	5.59		
Н	0.157	0.187	4.00	4.75		
J	0.090	0.115	2.25	2.92		

#### SUGGESTED SOLDER PAD LAYOUT





0.0

25

50

## **Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

1.2

1.0

0.8

0.6

0.2

Resistive or Inductive Load

Fig. 3 - Typical Instantaneous Forward Characteristics

Lead Temperature (°C)

125

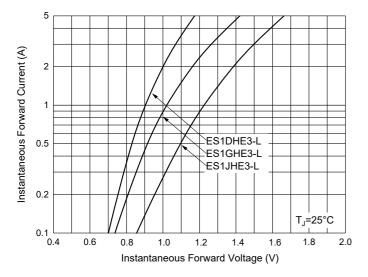
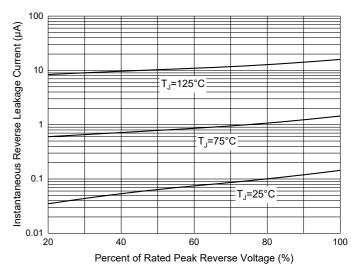


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge
Current

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

Fig. 4 - Typical Reverse Leakage Characteristics





# **Ordering Information**

Device	Packing	
ES1DHE3-LTP~ES1JHE3-LTP	Tape&Reel: 5Kpcs/Reel	

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