

### Surface Mount Super Fast Rectifiers

 Lead(Pb)-Free

#### Features:

- \*For Surface Mount Application
- \*Glass Passivated Chip
- \*Low Reverse Leakage Current
- \*Low Forward Voltage Drop And High Current Capability
- \*Super Fast Switching For High Efficiency
- \*Plastic Material Has UL Flammability Classification 94V-0

**REVERSE VOLTAGE**  
**50 TO 600 VOLTS**  
**FORWARD CURRENT**  
**1.0 AMPERE**



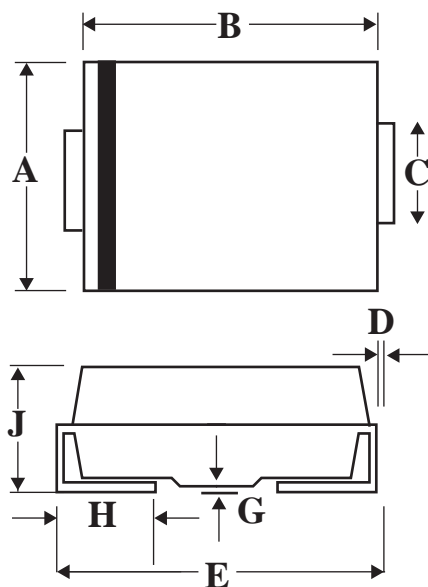
**SMA(DO-214AC)**

#### Mechanical Data

- \*Case : Molded Plastic
- \*Polarity : Indicated by cathode band
- \*Weight : 0.002 Ounce , 0.064 grams

### SMA Outline Dimension

Unit:mm



SMA		
Dim	Min	Max
A	2.20	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.48	5.59
G	0.10	0.20
H	0.76	1.52
J	1.70	2.62

## Maximum Ratings and Electrical Characteristics

Rating 25°C Ambient Temperature Unless Otherwise Specified.  
 Single Phase Half Wave, 60Hz , Resistive or Inductive Load.  
 For Capacitive Load, Derate Current by 20%.

Characteristics	Symbol	ES1A	ES1B	ES1D	ES1G	ES1J	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	V
Maximum Average Forward Rectified Current @TC=110°C	IF(AV)	1.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM	30					A
Maximum Instantaneous At 1.0A DC	VF	0.95			1.30	1.50	V
Maximum DC Reverse Current @Tj=25°C At Rated DC Blocking Voltage @Tj=125°C	IR	5.0 200					uA
Maximum Reverse Recovery Time(Note1)	Trr	35					nS
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	10					P <sub>F</sub>
Typical Thermal Resistance (Note 3)	R <sub>θJL</sub>	25					°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to+150					°C
Storage Temperature Range	TSTG	-55 to+150					°C

NOTES:1.Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

2.Measured at 1.0MHz applied reverse voltage of 4.0V DC.

3.Thermal Resistance Junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

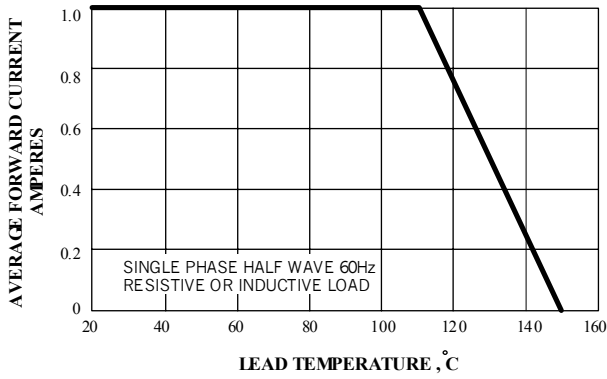


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

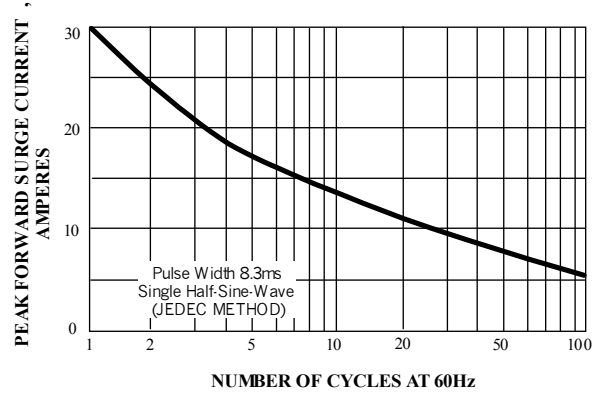


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

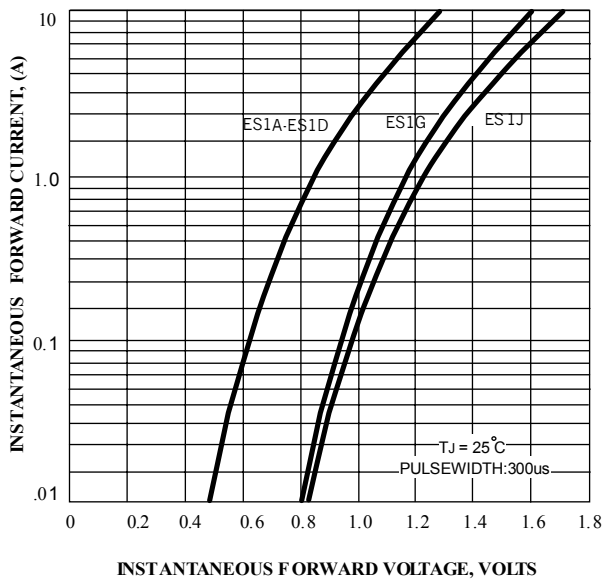


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

