

Surface Mount Super Fast Rectifiers

* “G” Lead(Pb)-Free

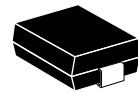
Features:

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

Mechanical Data

- *Case : Molded Plastic
- *Polarity :Indicated by cathode band
- *Weight : 0.007 Ounce ,0.21 grams

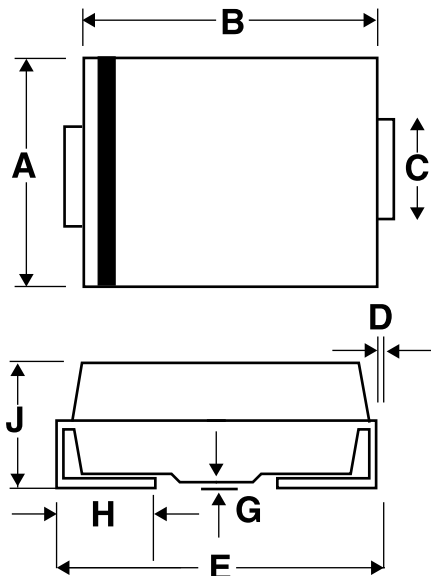
REVERSE VOLTAGE
50 TO 600 VOLTS
FORWARD CURRENT
3.0 AMPERE



SMC(DO-214AB)

SMC Outline Dimension

Unit:mm



SMC		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62

ES3A thru ES3J

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	ES3A	ES3B	ES3D	ES3G	ES3J	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=100°C	IF(AV)	3.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM	100					A
Maximum Instantaneous At 3.0A 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	10 500					uA
Maximum Reverse Recovery Time(Note1)	Trr	35					nS
Typical Junction Capacitance (Note 2)	Cj	45					P _F
Typical Thermal Resistance (Note 3)	R _{θJL}	10					°C/W
Operating Temperature Range	T _J	-55 to+150					°C
Storage Temperature Range	TSTG	-55 to+150					°C

NOTES:1.Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

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

3.Thermal Resistance Junction to case.

ES3A Thru ES3J

FIG.1 - FORWARD CURRENT DERATING CURVE

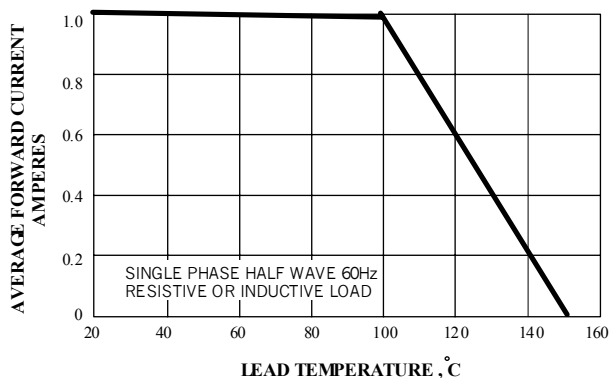


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

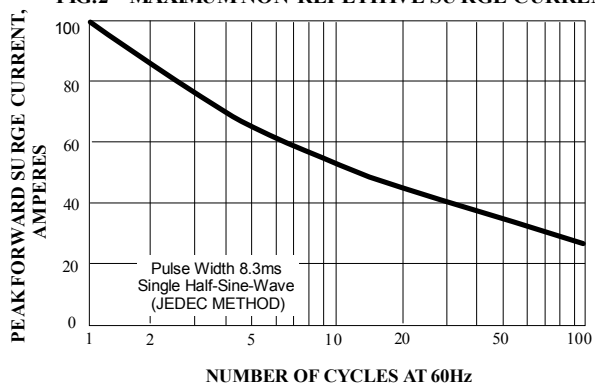


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

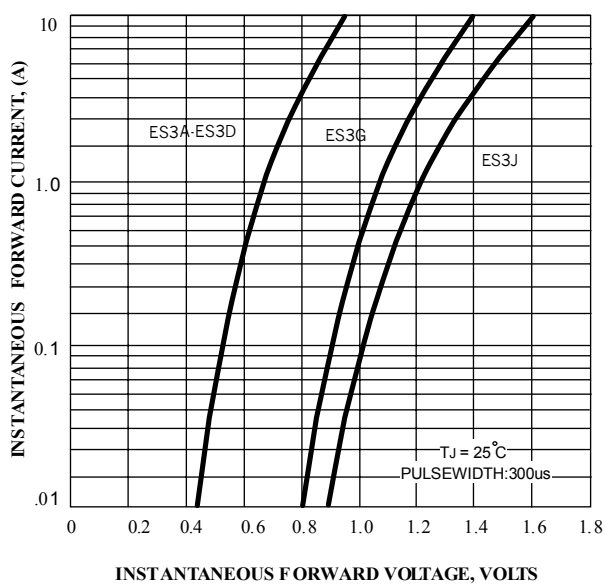


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

