

Surface Mount Super Fast Rectifiers

(Pb) Lead(Pb)-Free

Features:

- * High current capability
- * High surge current capability
- * Low reverse current
- * Component in accordance to RoHS 2002/95/EC

Mechanical Data

- * Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- * Terminals: Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- * Polarity: Cathode Band
- * Weight: 0.095 grams (approximate)

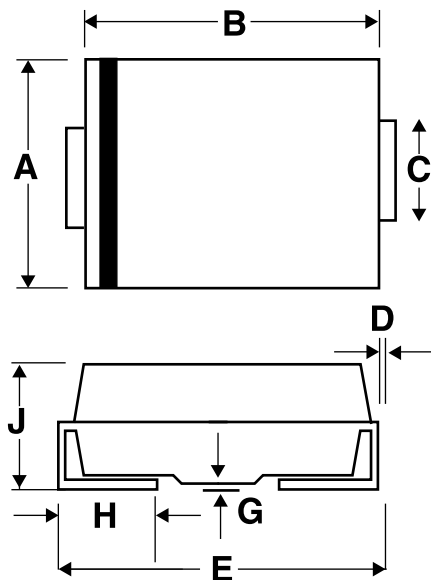
REVERSE VOLTAGE
50 TO 600 VOLTS
FORWARD CURRENT
3.0 AMPERE



SMB(DO-214AA)

SMB Outline Dimensions

Unit:mm



SMB		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.80
C	1.96	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62

Maximum Ratings and Electrical Characteristics

(TA=25°C unless otherwise noted)

Characteristics	Symbol	ES3AB	ES3BB	ES3CB	ES3DB	ES3FB	ES3GB	ES3JB	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	600	V
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current	IF(AV)	3.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load	IFSM	80.0							A
Maximum Instantaneous IF = 3.0A @ 25°C	VF	0.98			1.30		1.75	V	
Maximum DC Reverse Current @TA=25°C At Rated DC Blocking Voltage @TA=100°C	IR	5 100							uA
Maximum Reverse Recovery Time(Note1)	Trr	35							nS
Typical Junction Capacitance (Note 2)	C _J	50			30				P _F
Typical Thermal Resistance	R _{θJC}	30							°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: IF=0.5A, IR=1.0A, I_{RR}=0.25A.

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

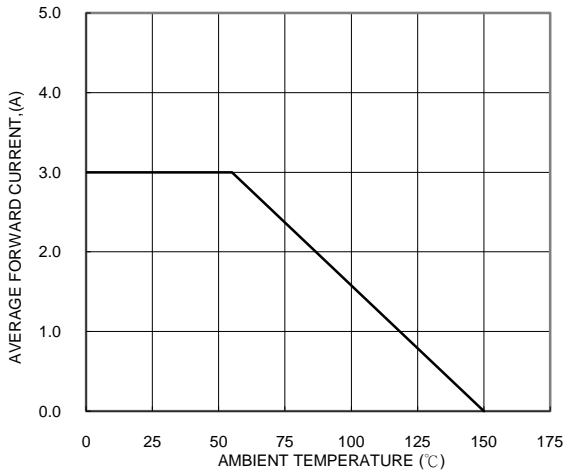


FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

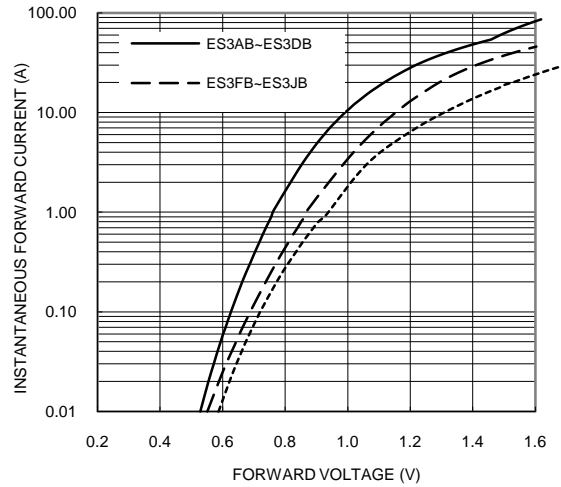


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

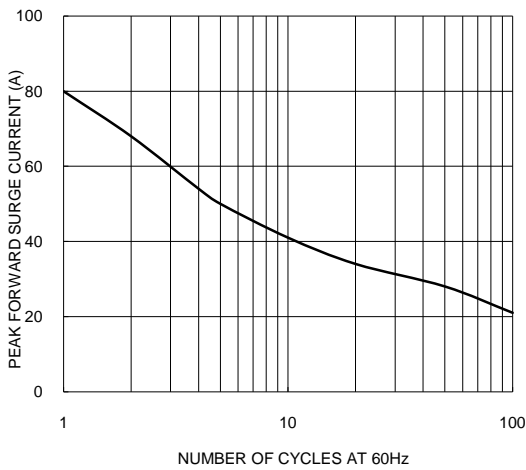


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

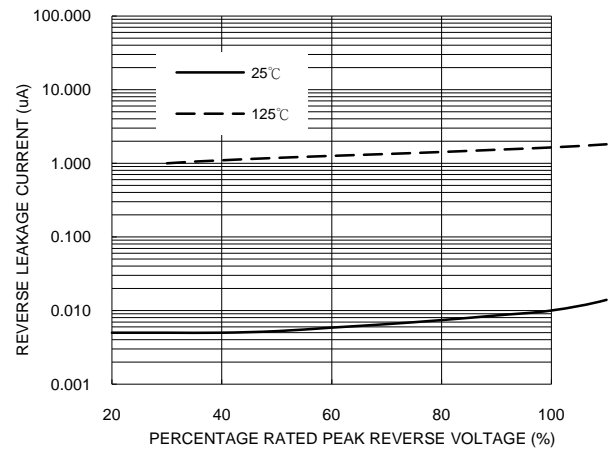


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

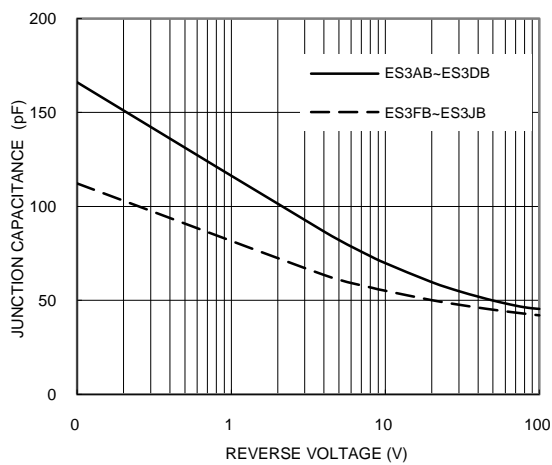


FIG. 5-TYPICAL JUNCTION CAPACITANCE