

Surface Mount Ultra Fast Recovery Rectifiers

(Pb) Lead(Pb)-Free

Features:

- * Low profile package
- * Ideal for automated placement
- * Low reverse current
- * Fast reverse recovery time

Mechanical Data:

- * Cases: DO-214AB(SMC)
- * 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: 0.231 grams (approximate)

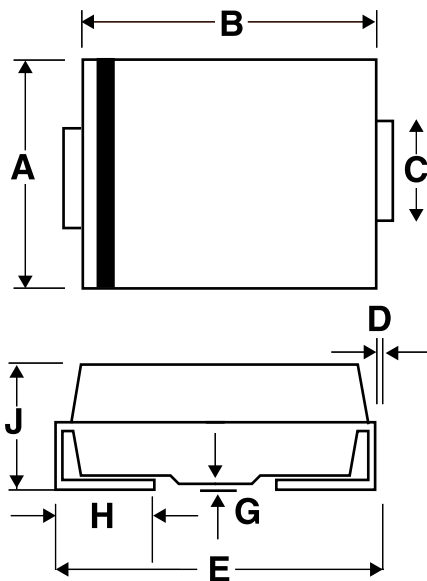
REVERSE VOLTAGE
50 TO 1000 VOLTS
FORWARD CURRENT
3.0 AMPERE



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

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Characteristics	Symbol	US3A	US3B	US3D	US3G	US3J	US3K	US3M	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward	IF(AV)	3.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load	IFSM	80							A
Maximum Instantaneous At 3.0A DC	VF	1.0			1.3	1.7			V
Maximum DC Reverse Current @TA=25°C At Rated DC Blocking Voltage @TA=100°C	IR	5.0 100							µA
Maximun Reverse Recocery Time	Trr	50				75			nS
Typical Junction Capacitance ²	CJ	80				50			pF
Typical Thermal Resistance ¹	RθJA	10							°C/W
Operating Temperature Range	TJ	-55 to+150							°C
Storage Temperature Range	TSTG	-55 to+150							°C

NOTES: 1.Measured at 1.0MHZ and a pplied re verse vo lta ge of 4.0V DC

2.Measured with IF=0.5A, I_R=1A, IRR=0.25A

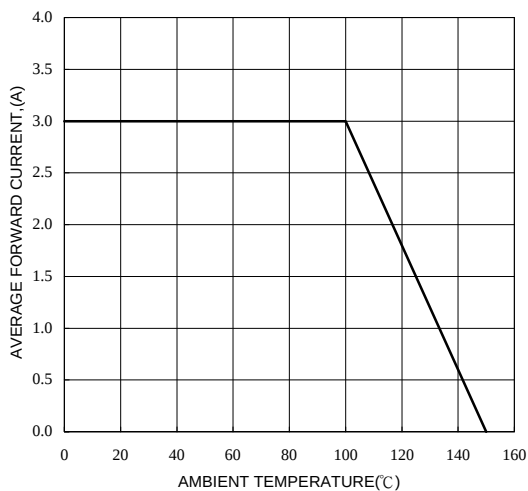


FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

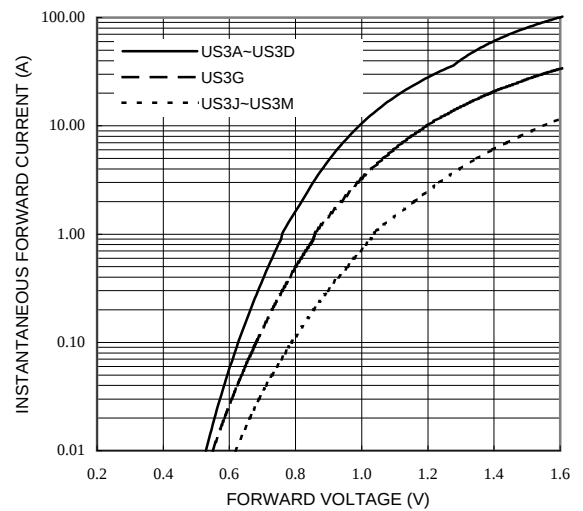


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

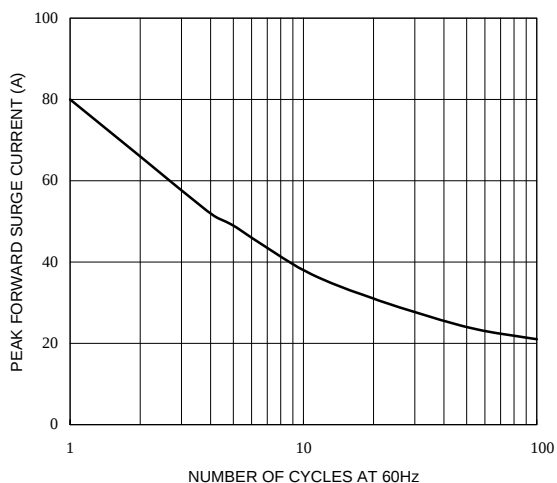


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

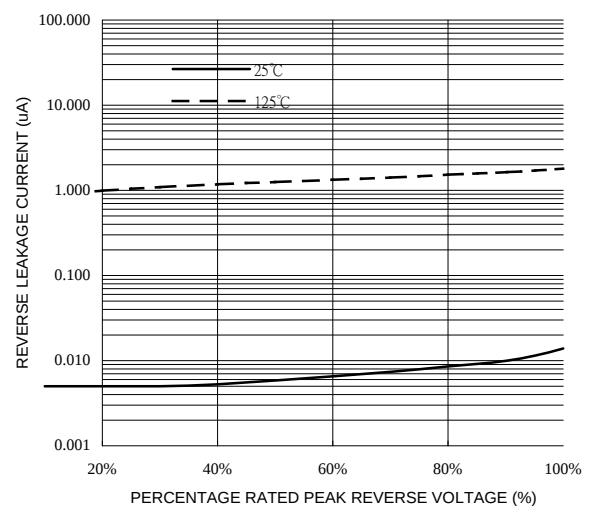


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

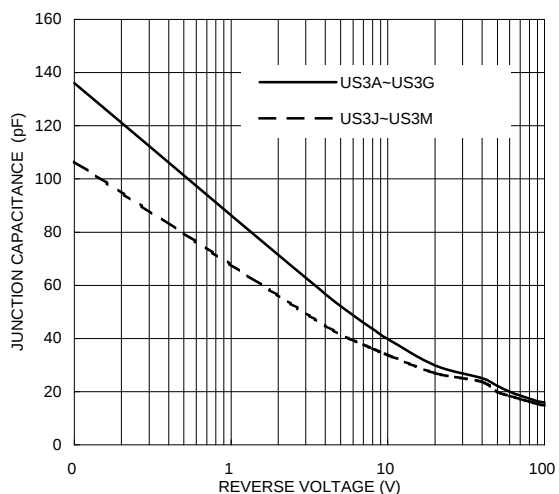


FIG. 5-TYPICAL JUNCTION CAPACITANCE