WEITRON

US3A thru US3M

Surface Mount Ultra Fast Recovery Rectifiers

Pb Lead(Pb)-Free

REVERSE VOLTAGE
50 TO 1000 VOLTS
FORWARD CURRENT
3.0 AMPERE

Features:

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

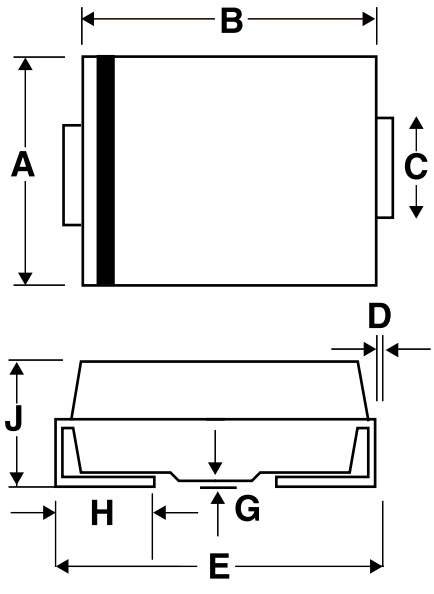
SMC(DO-214AB)

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)

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	V_F	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]	C_J	80				50			pF
Typical Thermal Resistance[1]	$R_{\theta JA}$	10							°C/W
Operating Temperature Range	T_J	-55 to+150							°C
Storage Temperature Range	T_{STG}	-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, IR=1A, IRR=0.25A

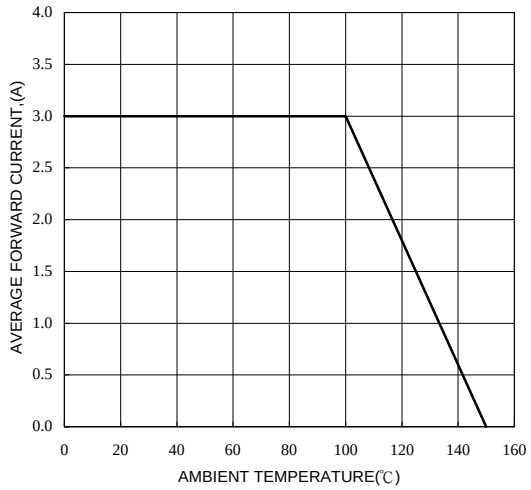


FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

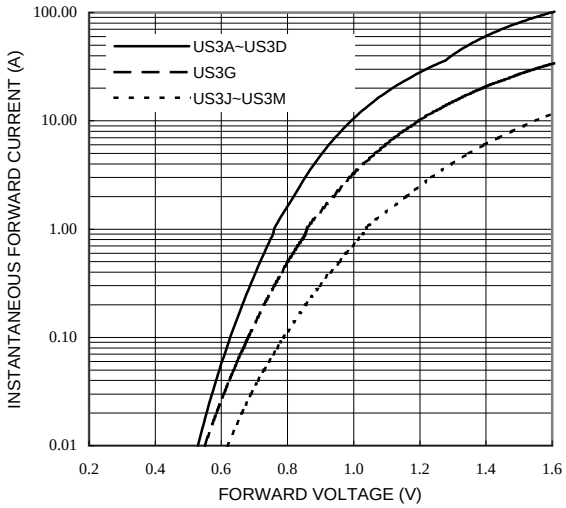


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

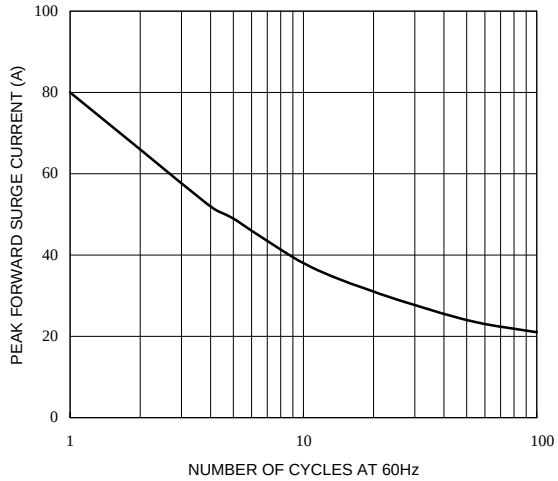


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

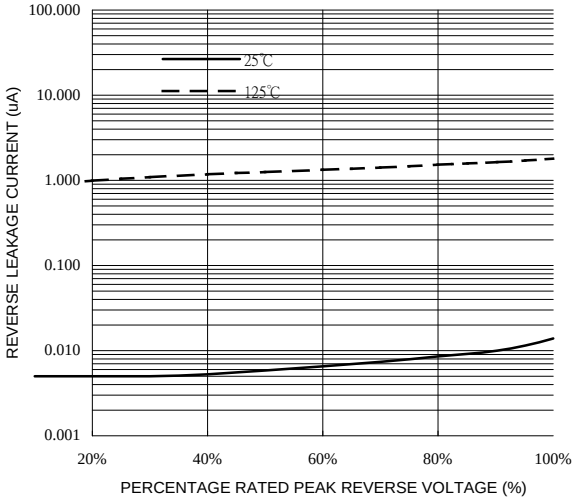


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

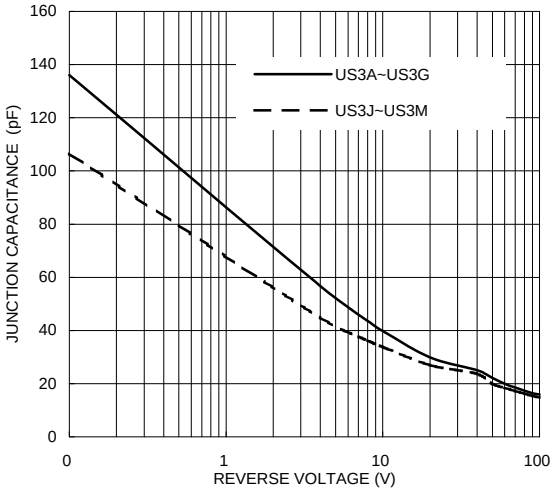


FIG. 5-TYPICAL JUNCTION CAPACITANCE