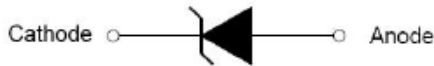


**SMC**



**Features**

- Low reverse leakage
- Glass passivated junction
- High forward surge current capability
- High efficiency operation
- Halogen free and RoHS compliant
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0

**Mechanical Data**

- CASE: SMCJ(DO-214AB) Molded Plastic
- Polarity: Color band denotes cathode end
- Mounting position: ANY
- Weight: 0.009 ounces, 0.25 gram

**Maximum Ratings & Electrical Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.)

Parameter	SYMBOLS	ES3DC	ES3JC	UNITS
	MARKING	ES3D	ES3J	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	200	600	V
Maximum RMS voltage	V <sub>RMS</sub>	140	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	200	600	V
Maximum average forward rectified current at T <sub>L</sub> =100 C	I <sub>(AV)</sub>	3.0		A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	100.0		A
Maximum instantaneous forward voltage at 3.0A	V <sub>F</sub>	0.95	1.70	V
Maximum DC reverse current T <sub>A</sub> =25 C at rated DC blocking voltage T <sub>A</sub> =125 C	I <sub>R</sub>	10 500		u A
Maximum reverse recovery time(Note 1)	T <sub>rr</sub>	35		ns
Typical junction capacitance (Note2)	C <sub>J</sub>	60.0		pF
Typical thermal resistance	R <sub>qJA</sub>	65.0		C/W
Operating junction and storage temperature range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150		C

Note: 1.Reverse recovery time test condition: IF=0.5A IR=1.0A Irr=0.25A  
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SMC	Tape/Reel, 13" reel	3000	EIA-481-1

## Ratings and Characteristic Curves

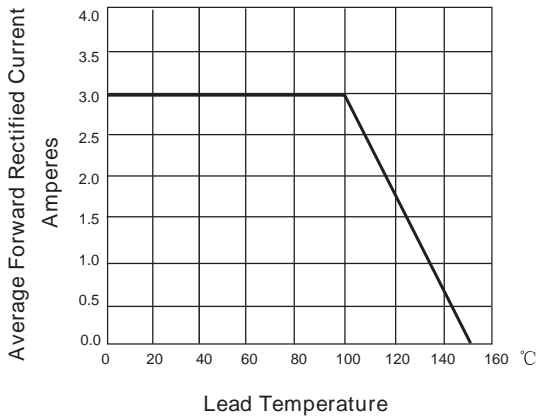


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

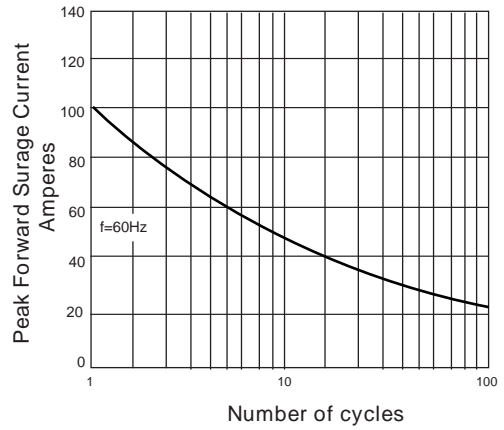


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

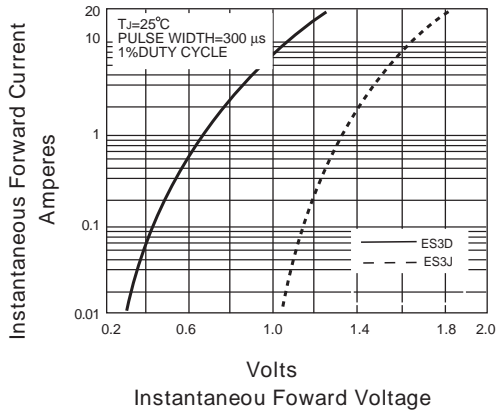


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

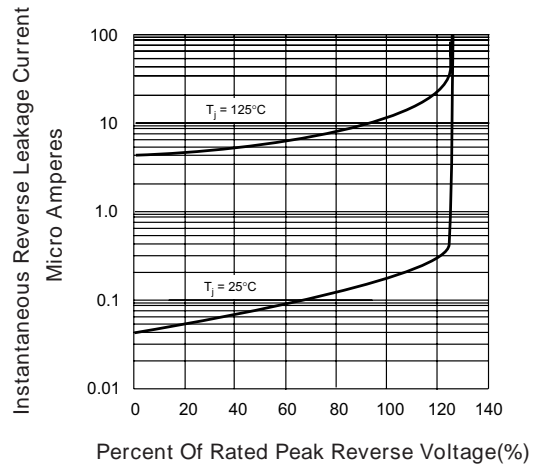


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

## Package Outline Dimensions: SMC(DO-214AB)

Dim	Millimeters		Inches	
	Min	Max	Min	Max
L	6.75	6.95	0.265	0.274
D	5.75	5.95	0.226	0.234
D1	2.9	3.1	0.114	0.122
T	7.9	8.1	0.311	0.319
T1	1.0	1.4	0.039	0.055
d	-	0.2	-	0.008
H	2.45	2.65	0.096	0.104
H1	2.3	2.5	0.09	0.098