

Voltage Range 50 to 600 V
Current 3.0 Ampere

Features

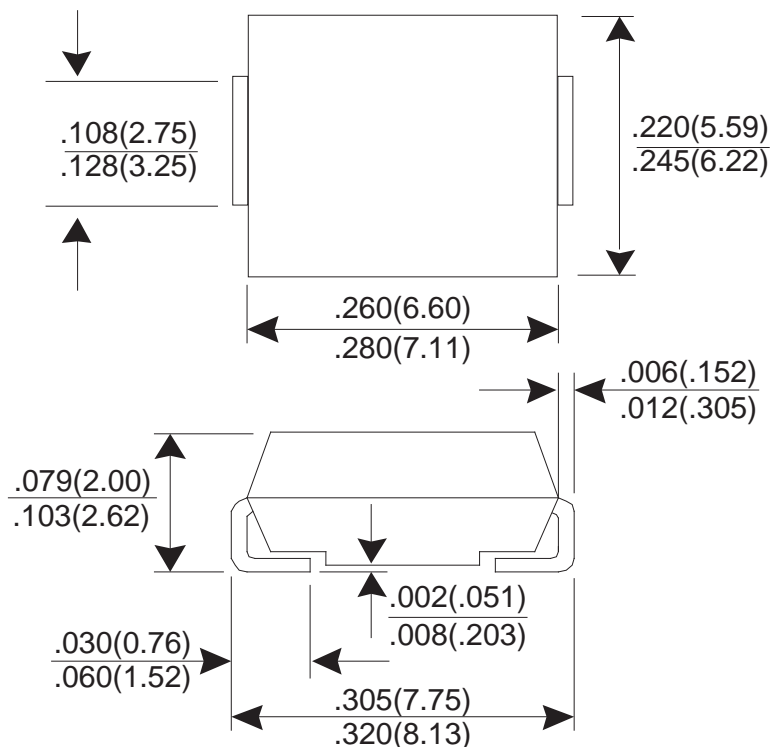
- * Fast switching for high efficiency
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability
- * Glass passivated chip

Mechanical Data

- * Case: Molded plastic SMC/DO-214AB
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solderable per MIL-STD-750 method 2026
- * Polarity: Color band denotes cathode
- * Mounting position: Any
- * Weight: 0.21 gram

Dimensions in inches and (millimeters)

SMC/DO-214AB



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

PARAMTER	SYMBOL	TFS3A	TFS3B	TFS3D	TFS3G	TFS3J	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 TA=90°C	IF(AV)	3.0					A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	100					A
Maximum Instantaneous Forward Voltage @ 3.0 A	VF	0.95			1.25	1.7	V
Maximum DC Reverse Current @TJ=25°C At Rated DC Blocking Voltage @TJ=125°C	IR	5.0 250					uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	35					nS
Typical junction Capacitance (Note 2)	CJ	50					pF
Typical Thermal Resistance (Note 3)	RθJA	55					°CW
Operating Junction and Storage Temperature Range	TJ, 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 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
 (3) Thermal Resistance junction to ambient.

RATING AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

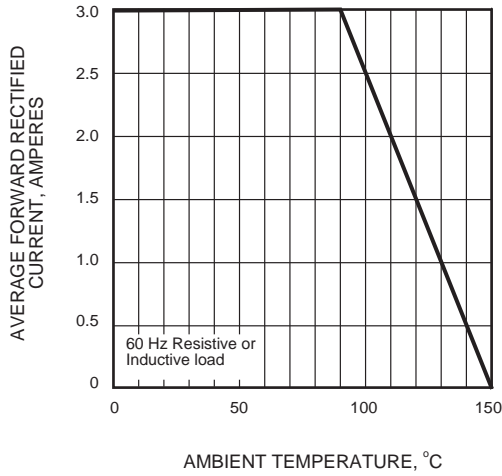


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

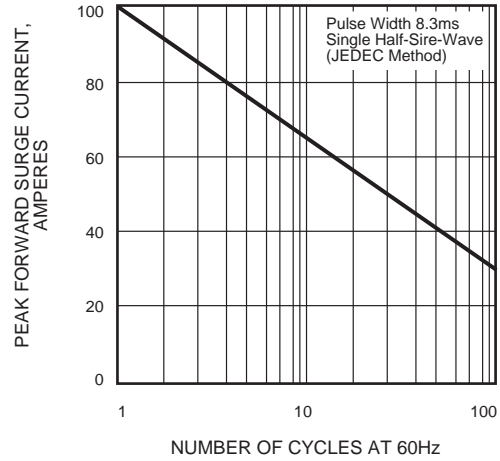


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

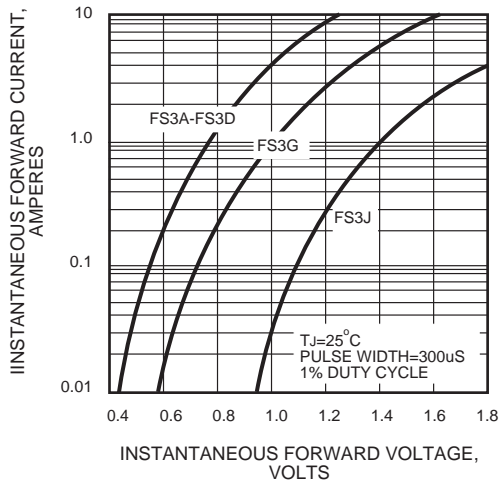


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

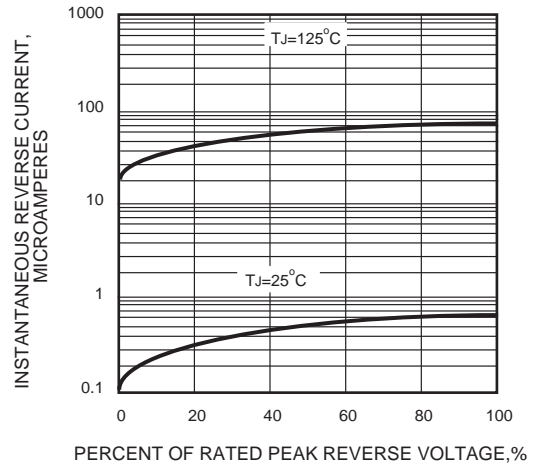


FIG.5 - TYPICAL JUNCTION CAPACITANCE

