

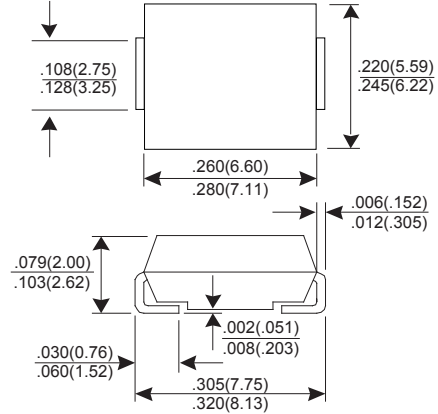
SMC50~510

Description



SMC/DO-214AB

Mechanical Dimensions



Dimensions in inches and (millimeters)

Features

- * 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 end
- * Mounting position: Any
- * Weight: 0.21 gram

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%.									
SYMBOL	SMC50	SMC51	SMC52	SMC54	SMC56	SMC58	SMC510	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 Rectified Current TA=75°C	I(AV)	5.0							A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	100							A
Maximum Instantaneous Forward Voltage @ 5.0 A	VF	1.1							V
Maximum DC Reverse Current @TJ=25°C At Rated DC Blocking Voltage @TJ=125°C	IR	10.0 250							uA uA
Typical junction Capacitance (Note 1)	CJ	40							pF
Typical Thermal Resistance (Note 2)	RθJA	10							°C/W
Operating Junction and Storage Temperature Range	TJ,TSTG	-55 to +150							°C

NOTES : (1) Thermal Resistance junction to ambient.
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

RATINGS AND CHARACTERISTIC CURVES S5A THRU S5M

SMC50~510

FIG.1 - FORWARD CURRENT DERATING CURVE

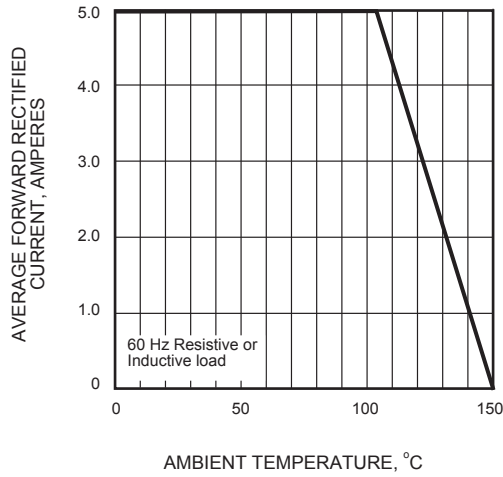


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

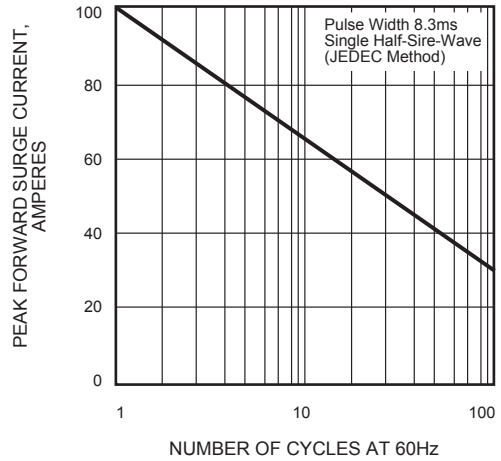


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

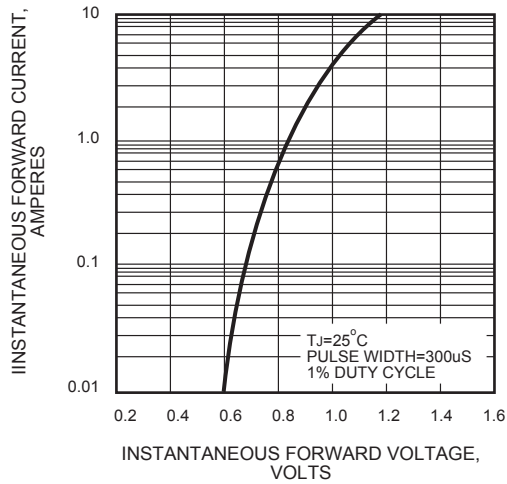


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

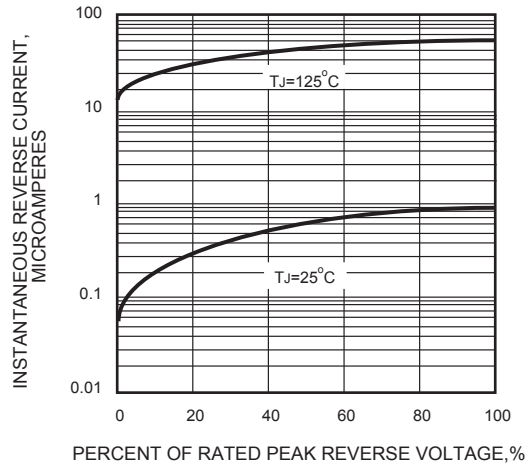


FIG.5 - TYPICAL JUNCTION CAPACITANCE

