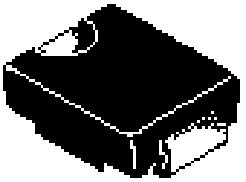
Semiconductor *Data Sheet*

3.0 Amp SURFACE MOUNT PLASTIC SILICON DIODES

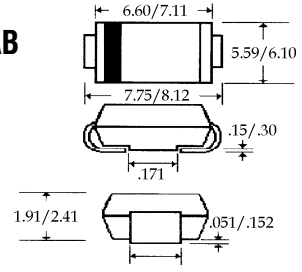
SMC31 ...310 Series

Description



Mechanical Dimensions

DO-214AB (SMC)



(Dimensions in mm)

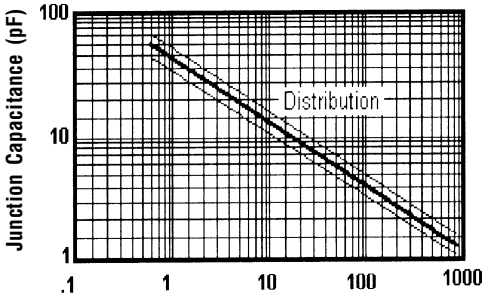
Features

- **LOW COST**
- **HIGH CURRENT CAPABILITY**
- **HIGH SURGE CAPABILITY**
- **LOW FORWARD VOLTAGE WITH LOW LEAKAGE CURRENT**
- **MEETS UL SPECIFICATION 94V-0**

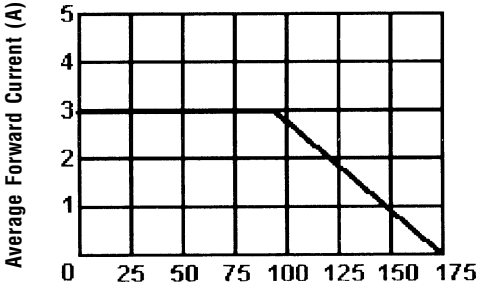
	SMC31 . . . 310 Series						Units
Maximum Ratings	**SMC31**	**SMC32**	**SMC34**	**SMC36**	**SMC38**	**SMC310**	
Peak Repetitive Reverse Voltage...V_{RRM}	100	200	400	600	800	1000	Volts
RMS Reverse Voltage...$V_{R(rms)}$	70	140	280	420	560	700	Volts
DC Blocking Voltage...V_{DC}	100	200	400	600	800	1000	Volts
Average Forward Rectified Current...$I_{F(av)}$	3.0						Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM}	200						Amps
Operating & Storage Temperature Range...T_J, T_{STRG}	-65 to 175						°C
Electrical Characteristics							
Maximum Forward Voltage @ 3.0 A...V_F	1.1						Volts
Maximum DC Reverse Current...I_R @ Rated DC Blocking Voltage T_C = 25°C	5.0						µAmps
T_C = 75°C	100						µAmps
Typical Junction Capacitance...C_J *(Note 1)*	50						pF
Typical Thermal Resistance...$R_{\theta JC}$	28						°C / W

3.0 Amp SURFACE MOUNT PLASTIC SILICON DIODES

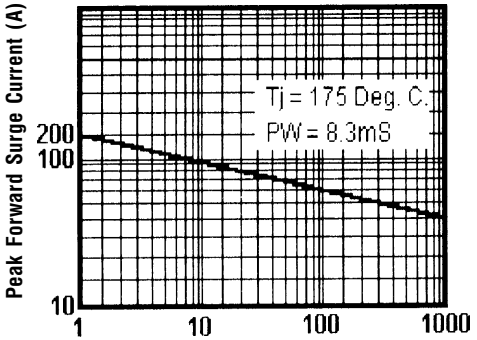
Typical Junction Capacitance



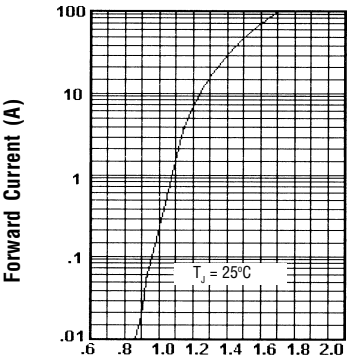
Forward Current Derating Curve



Peak Forward Surge Current



Typical Instantaneous Forward Characteristics



Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 Hz Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

NOTES: 1. Measured @ 1 MHz and applied reverse voltage of 4.0V.