

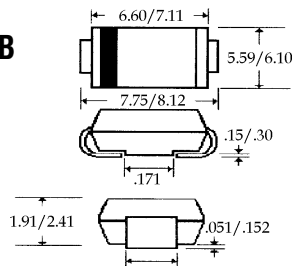
# 3.0 Amp SURFACE MOUNT PLASTIC SILICON DIODES

## Description



## Mechanical Dimensions

DO-214AB  
(SMC)



(Dimensions in mm)

## Features

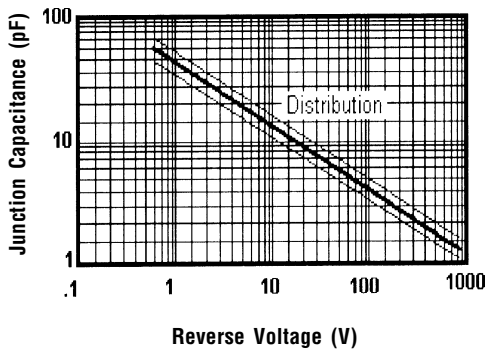
- LOW COST
- HIGH CURRENT CAPABILITY
- HIGH SURGE CAPABILITY
- LOW FORWARD VOLTAGE WITH LOW LEAKAGE CURRENT
- MEETS UL SPECIFICATION 94V-0

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	$T_C = 25^{\circ}C$			5.0			μAmps
	$T_C = 75^{\circ}C$			100			μAmps
Typical Junction Capacitance... $C_J$ (Note 1)	50						pF
Typical Thermal Resistance... $R_{\theta JC}$	28						°C / W

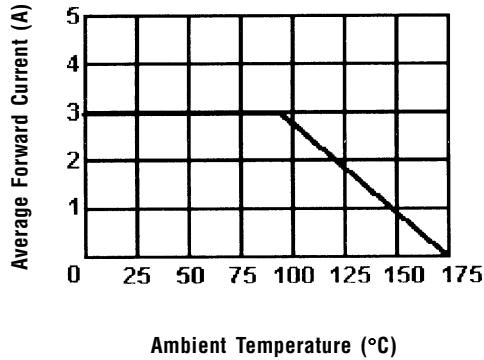
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**SMC31 ... 310 Series**

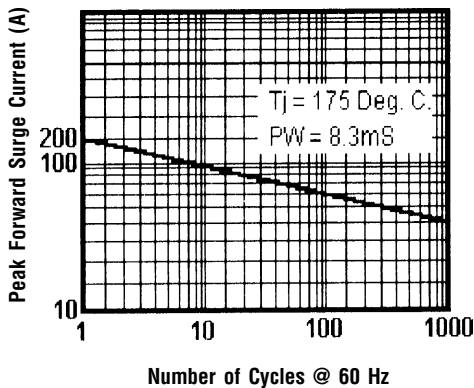
**Typical Junction Capacitance**



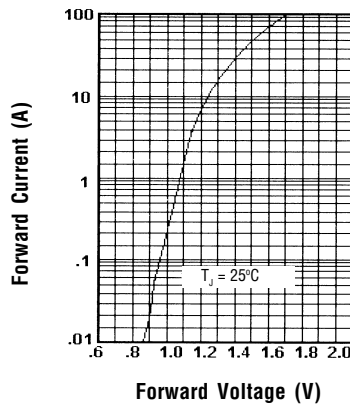
**Forward Current Derating Curve**



**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.