



## Features

- Average Forward Current:  $I_{F(AV)}=5A$
- Polarity: Color band denotes cathode



## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
CDBC5100-HF	SMC (DO-214AB)	SS510	3000

**SMC  
(DO-214AB)**



## Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Test Conditions	Limit	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$		100	V
Maximum RMS Voltage	$V_{RMS}$		70	V
Average Forward Current	$I_{F(AV)}$	60Hz Half-sine wave, Resistance load, FIG.1	5.0	A
Surge(Non-repetitive)Forward Current	$I_{FSM}$	60Hz Half-sine wave, 1 cycle, Ta=25°C	150	A
Junction Temperature	$T_J$		-55~+150	°C
Storage Temperature	$T_{STG}$		-55~+150	°C

## Electrical Characteristics (Ta=25°C unless otherwise specified)

Item	Symbol	Test Condition		Limit	Unit
Peak Forward Voltage	$V_F$	$I_F=5.0A$		0.85	V
Peak Reverse Current	$I_{RRM1}$	$V_{RM}=V_{RRM}$	$T_a=25^{\circ}C$	0.02	mA
	$I_{RRM2}$		$T_a=100^{\circ}C$	2.0	
Thermal Resistance(Typical)	$R_{\theta J-A}$	Between junction and ambient		60	°C/W
	$R_{\theta J-L}$	Between junction and terminal		20	

### Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.27" x 0.27" (7.0 mm x 7.0 mm) copper pad areas



## Typical Characteristics

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

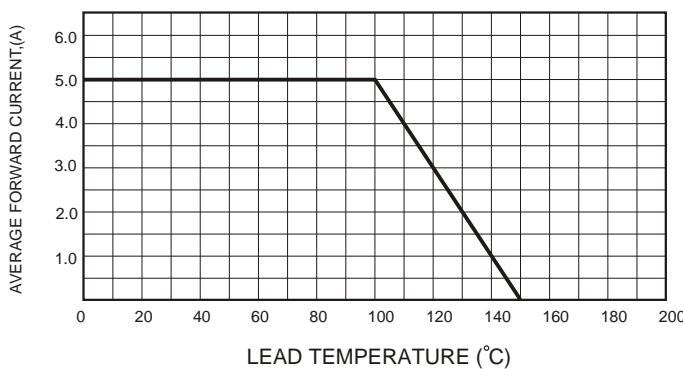


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

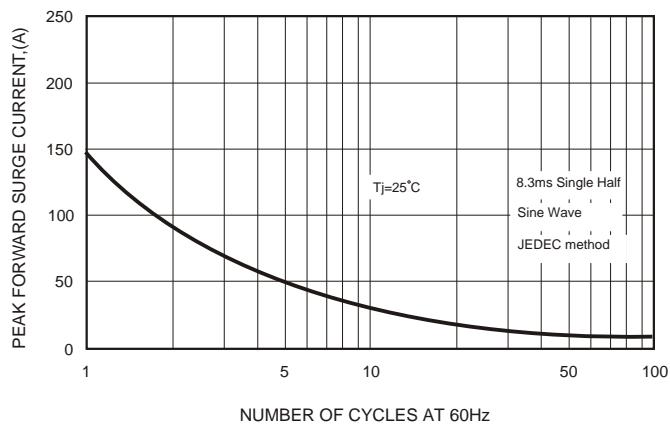


FIG.4-TYPICAL JUNCTION CAPACITANCE

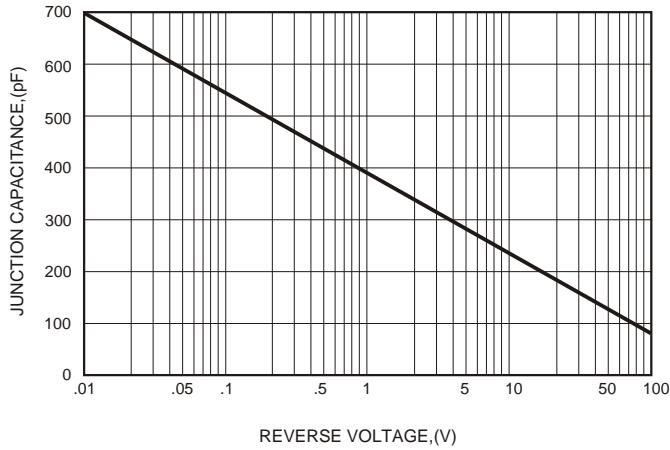


FIG.2-TYPICAL FORWARD CHARACTERISTICS

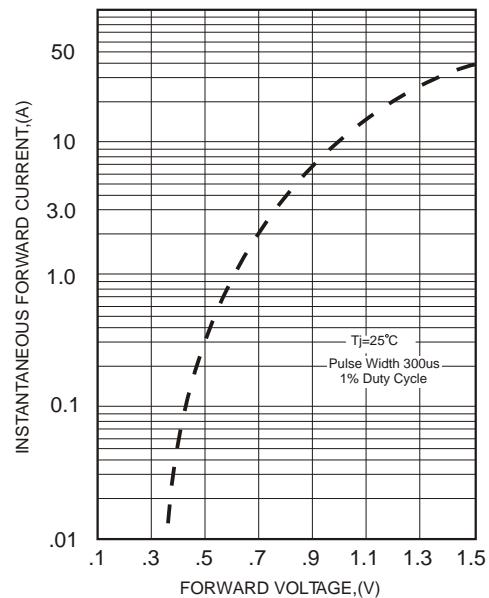
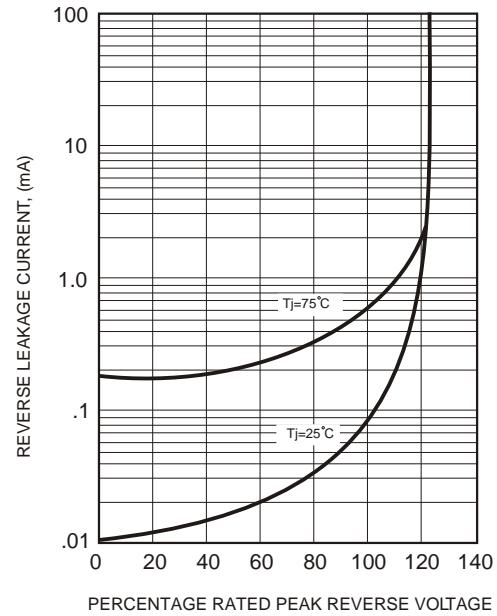


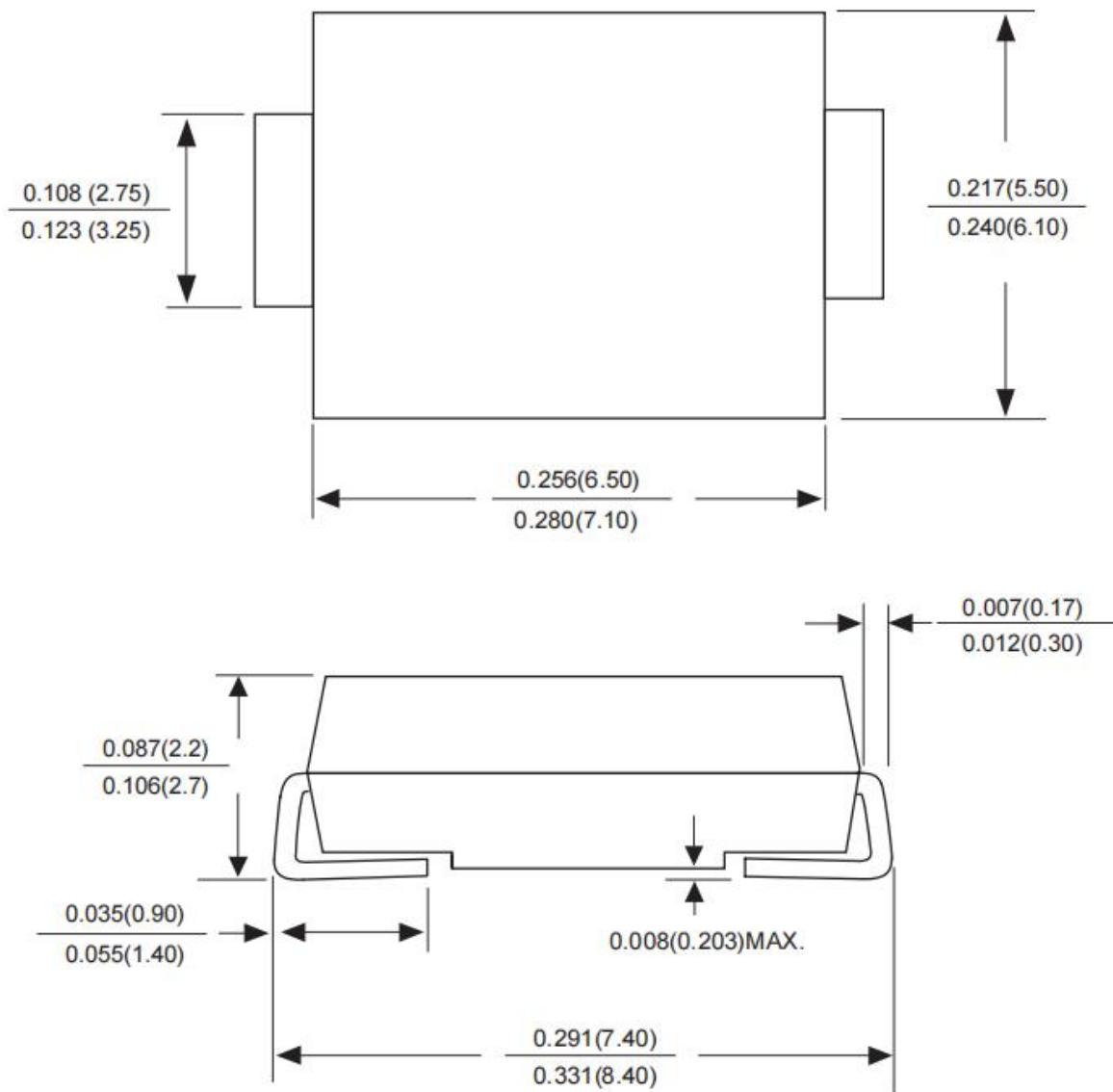
FIG.5 - TYPICAL REVERSE CHARACTERISTICS





### Package Outline Dimensions

SMC(DO-214AB)



Dimensions in inches and (millimeters)



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