



Features

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



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
MB54_R1_00001	SMC (DO-214AB)	M54100GH	3000

SMC
(DO-214AB)



Maximum Ratings ($T_a=25^{\circ}C$ unless otherwise noted)

Item	Symbol	Test Conditions	Limit	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		40	V
Maximum RMS Voltage	V_{RMS}		28	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, $T_a=25^{\circ}C$	150	A
Junction Temperature	T_J		-55 ~ +125	$^{\circ}C$
Storage Temperature	T_{STG}		-55 ~ +150	$^{\circ}C$

Electrical Characteristics($T_a=25^{\circ}C$ unless otherwise specified)

Item	Symbol	Test Condition	Limit	Unit
Peak Forward Voltage	V_F	$I_F=5.0A$	0.55	V
Peak Reverse Current	I_{RRM1}	$V_{RM}=V_{RRM}$	$T_a=25^{\circ}C$	mA
	I_{RRM2}		$T_a=100^{\circ}C$	
Thermal Resistance(Typical)	$R_{\theta J-A}$	Between junction and ambient	60	$^{\circ}C/W$
	$R_{\theta J-L}$	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

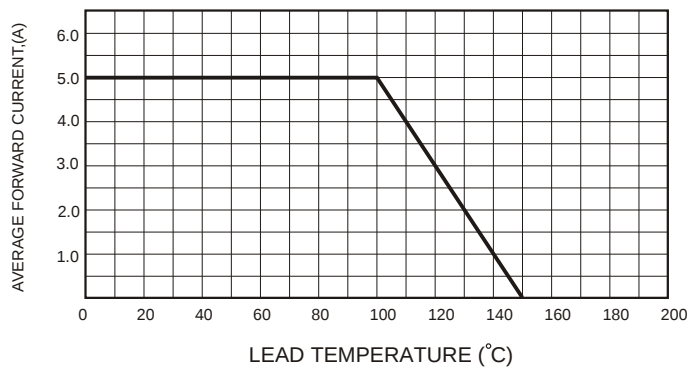


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

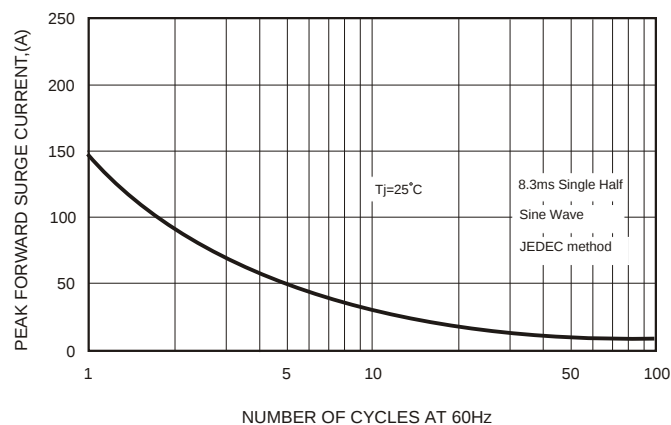


FIG.4-TYPICAL JUNCTION CAPACITANCE

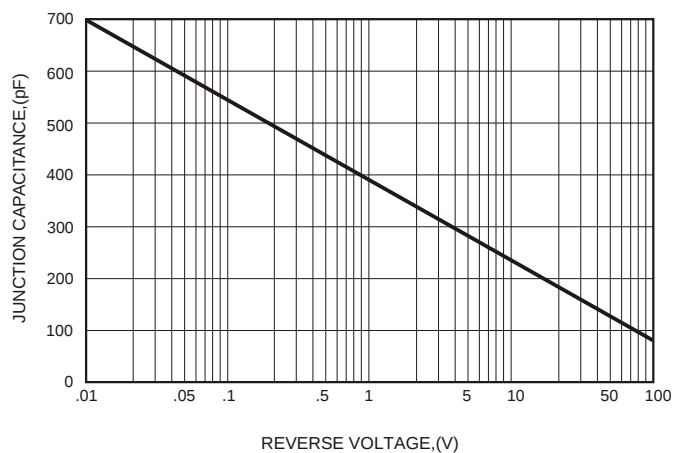


FIG.2-TYPICAL FORWARD CHARACTERISTICS

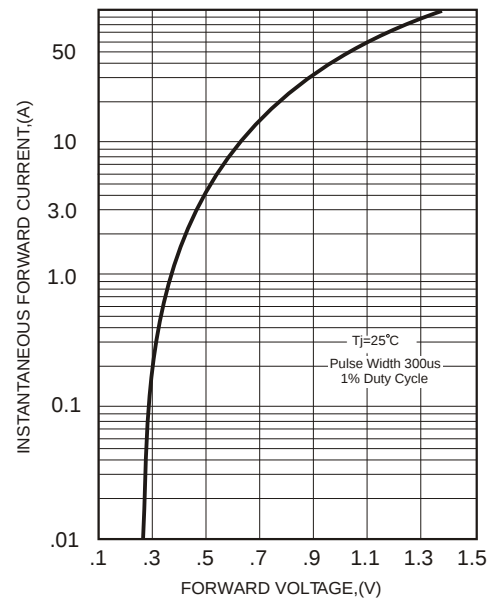
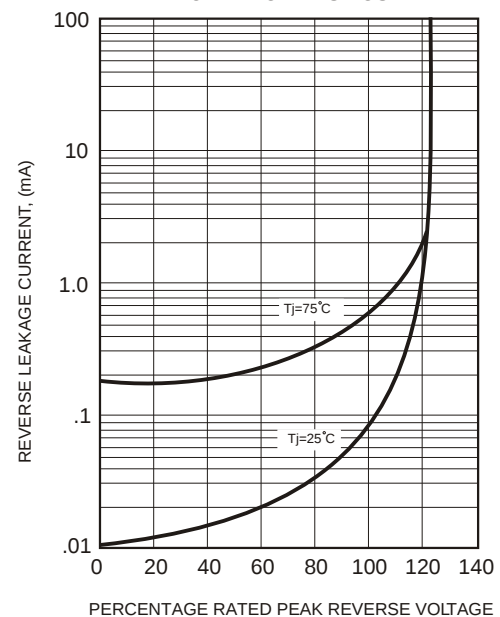
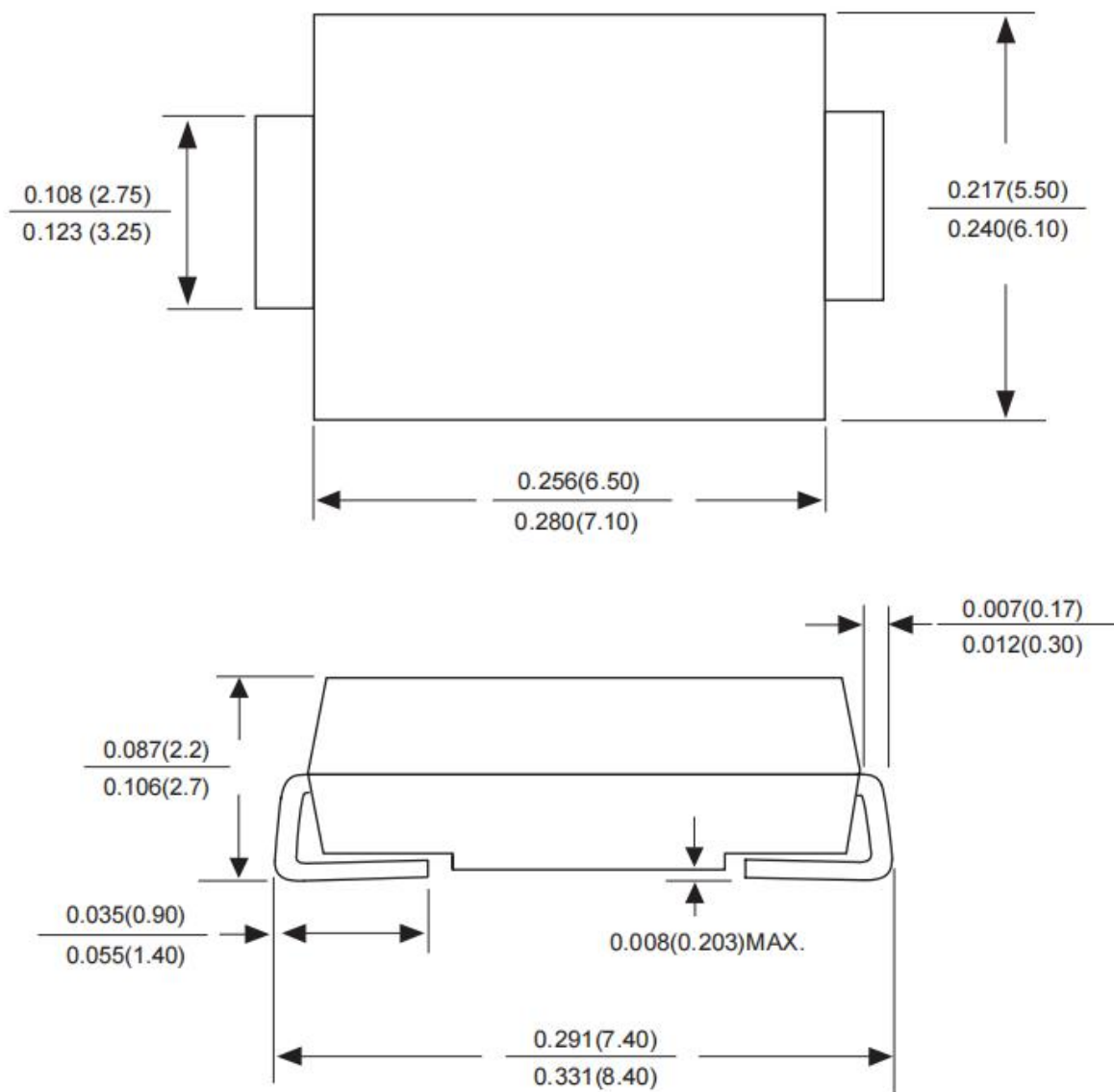


FIG.5 - TYPICAL REVERSE CHARACTERISTICS





Package Outline Dimensions
SMC(DO-214AB)



Dimensions in inches and (millimeters)



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