



Features

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



SMB

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
SK510	SMB	S51CQ	3000



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}	$V_{RM}=V_{RRM}$	0.1	mA
	I_{RRM2}		10	
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 0.6" x 0.6" (16 mm x 16 mm) copper pad areas



Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

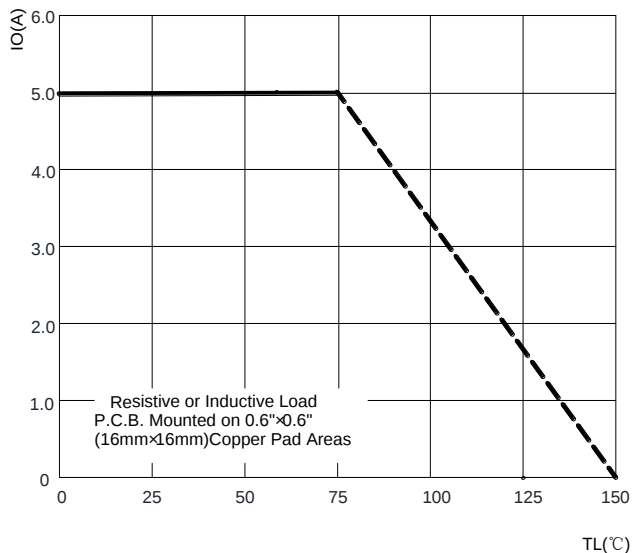


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

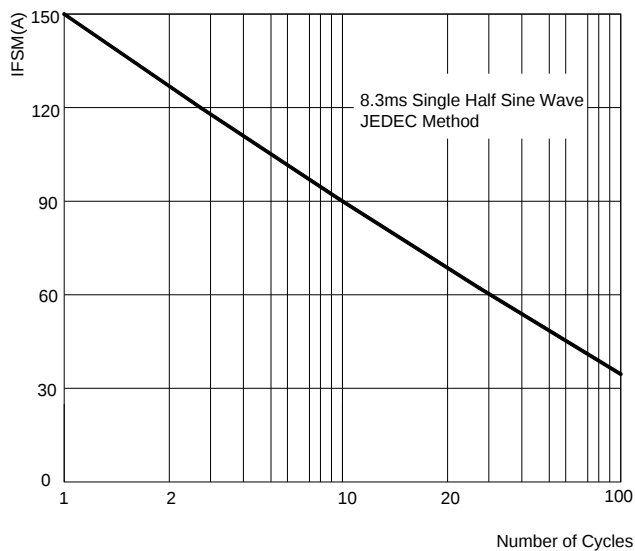


FIG.3: TYPICAL FORWARD CHARACTERISTICS

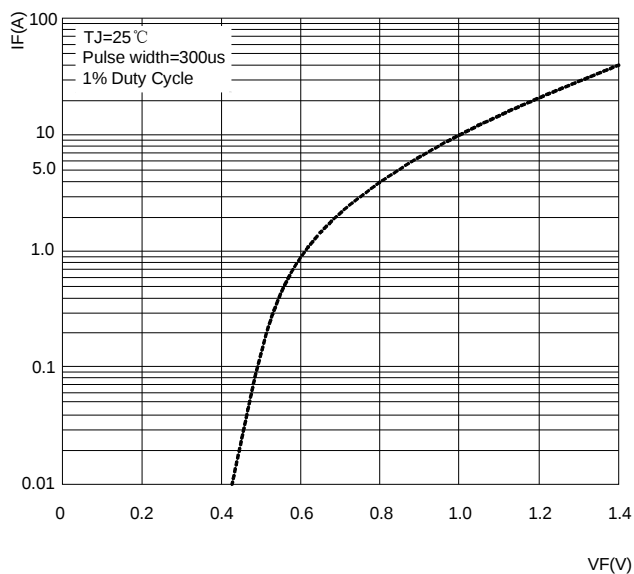
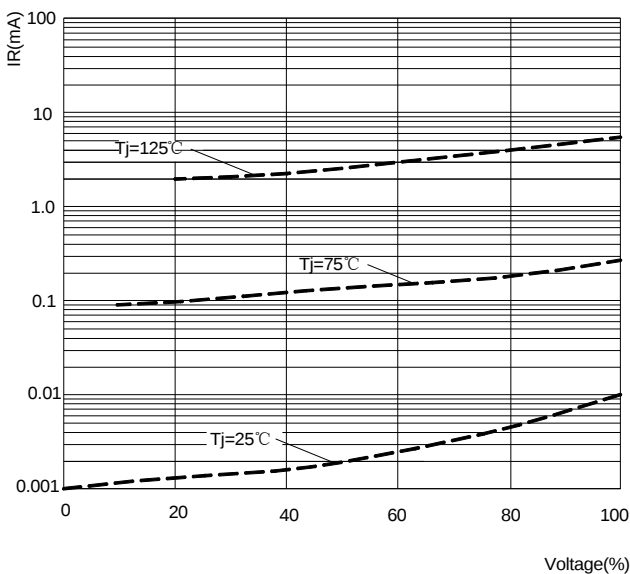
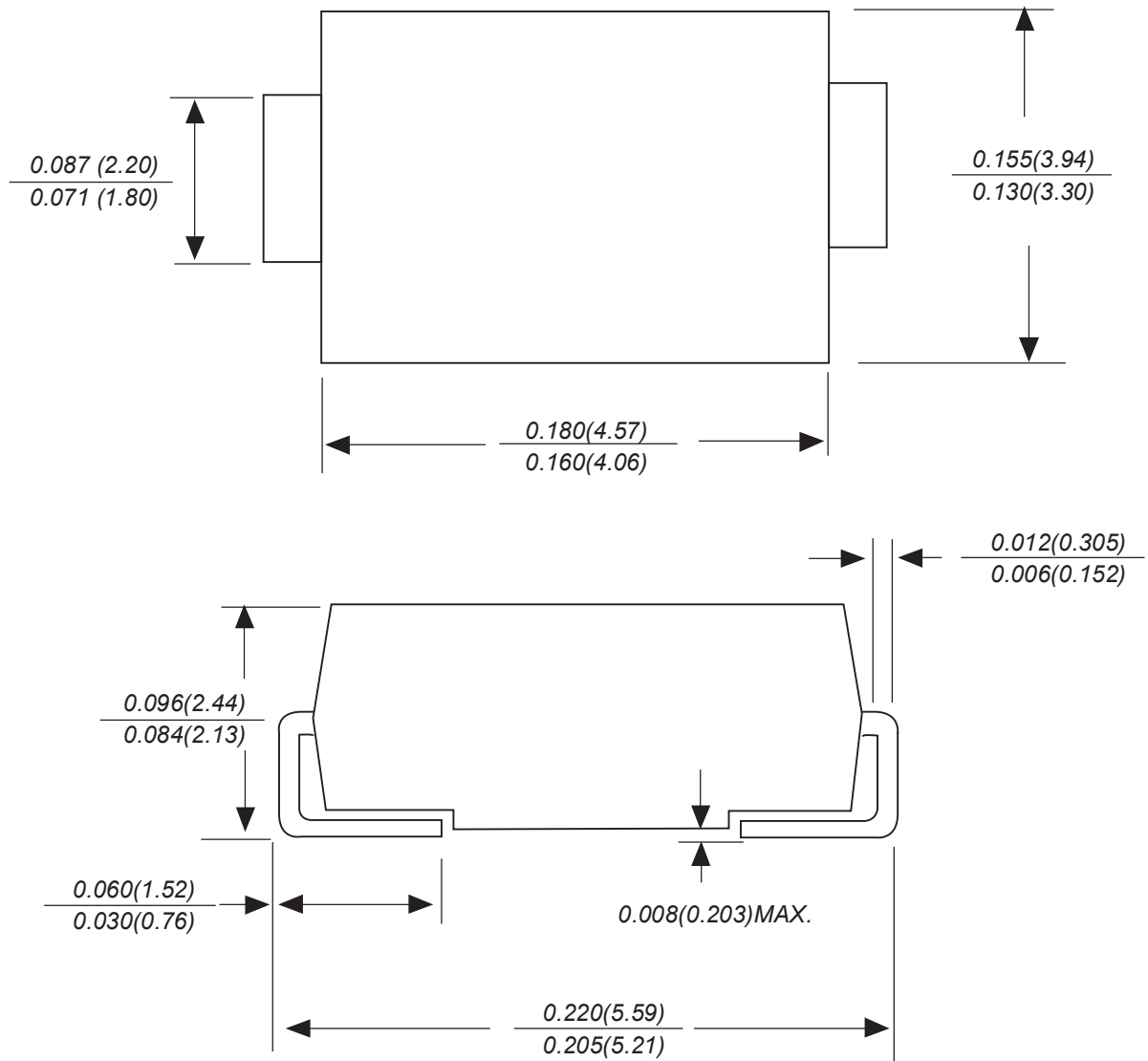


FIG.4: TYPICAL REVERSE CHARACTERISTICS





Package Outline Dimensions SMB



Dimensions in inches and (millimeters)



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