

Features

- Low forward voltage drop
- High forward surge current capability
- Low-profile SMD ideal for automated manufacturing
- RoHS compliant with Halogen-free

Mechanical Data

- Case: SMAF molded plastic
- Molding compound, UL flammability classification rating 94V-0 0
- Terminals: Solder plated, solderable per MIL- STD-202, Method 208
- Polarity: Color band denotes cathode end



SMAF

Maximum Ratings (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	RS2JF	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
RMS Reverse Voltage	V_{RMS}	420	V
DC Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Output Current	I_{F_AV}	2.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I_{FSM}	50	A

Thermal Characteristics

Parameter	Symbol	RS2JF	Unit
Typical Thermal Resistance *1	$R_{\theta JA}$	78	$^\circ\text{C/W}$
	$R_{\theta JC}$	18	
	$R_{\theta JL}$	20	
Operating Junction Temperature Range	T_J	- 55 ~+ 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 55 ~ + 150	$^\circ\text{C}$

Note *1: Device mounted on p.c.b. with 10 mm x 20 mm x 0.1mm copper pad area

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

Parameter	Symbol	Test Condition		Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage	V_F	$I_F=2.0\text{A}$		-	1.3	V
Maximum Reverse Current	I_R	Rated V_R	@ $T_A=25^\circ\text{C}$	-	5	μA
			@ $T_A=125^\circ\text{C}$	-	200	
Maximum Reverse Recovery Time	t_{rr}	$I_F=0.5\text{A}, I_{RM}=1\text{A}, I_{R(REC)}=0.25\text{A}$		-	250	ns

Ratings and Characteristics Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Forward Current Derating Curve

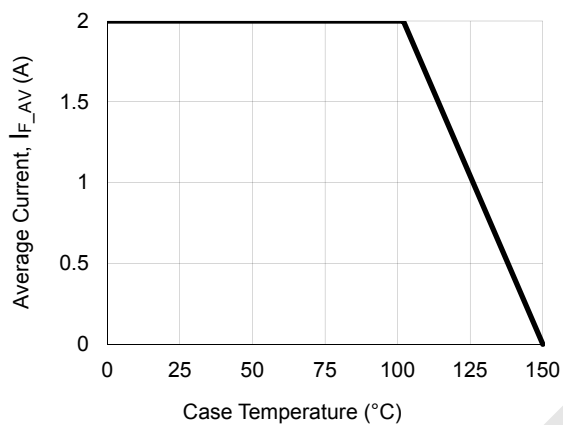


Fig. 2 Surge Current Derating Curve

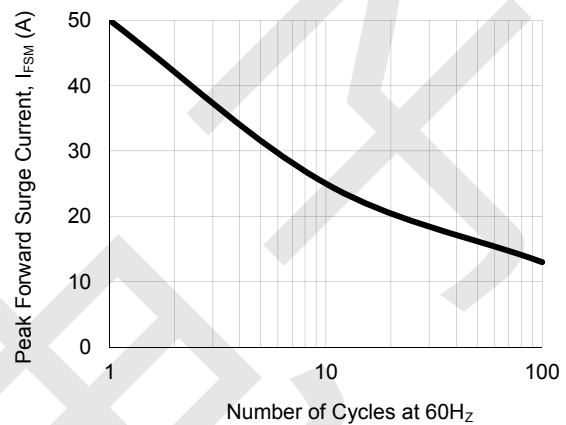


Fig. 3 Typical Forward Voltage Characteristics

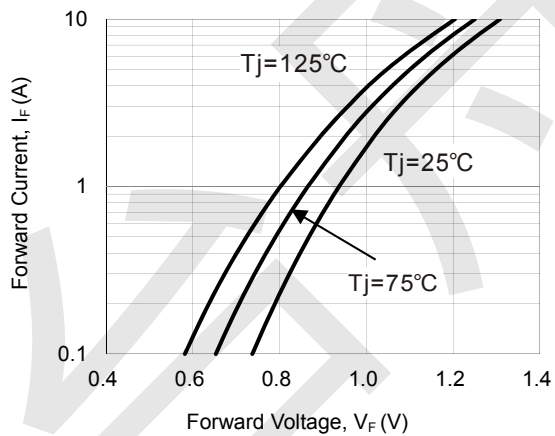
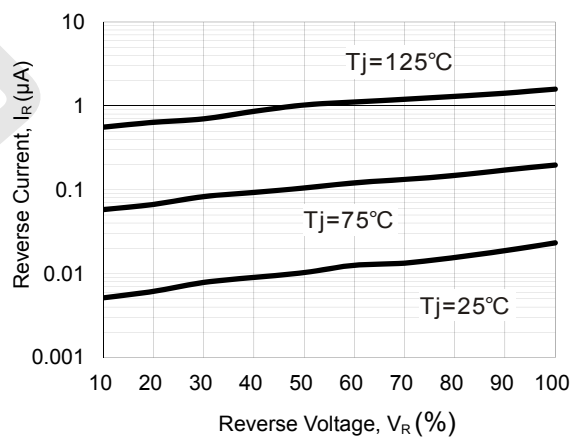
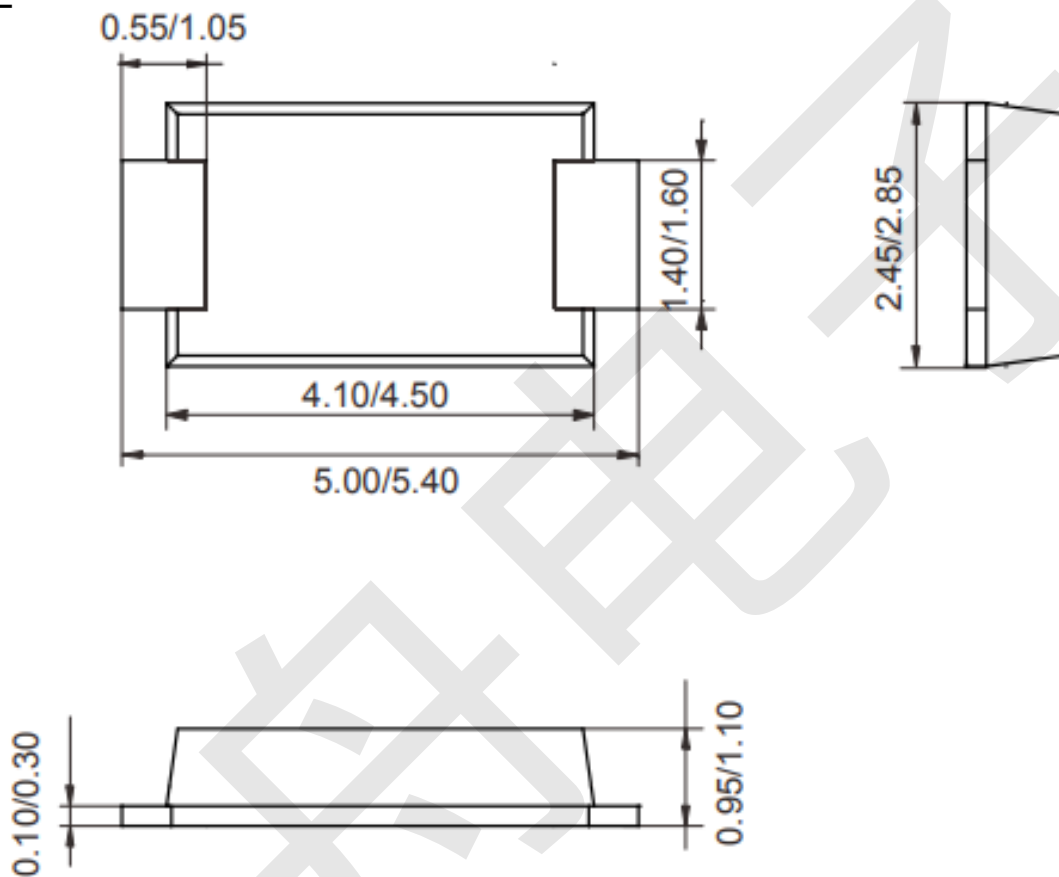


Fig. 4 Typical Reverse Characteristics



Package Outline Dimensions (Unit: mm)

SMAF



Mounting Pad Layout (Unit: mm)

