

Features

- Metal silicon junction, majority carrier conduction
- High forward surge current capability
- Low forward voltage drop
- High temperature soldering guaranteed: 260°C @ 10s
- Robust guarding for over voltage protection
- RoHS compliant with Halogen-free

Ordering Information

- Shipping Qty:3000/13inch Tape& Reel

Mechanical Data

- Case: SMAF molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Matte tin plated leads; solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes cathode end



SMAF



Absolute Maximum Ratings($T_A=25\text{ }^{\circ}\text{C}$ unless **P a s s a g e** otherwise noted)

Parameter	Symbol	TPBSS34AF	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
RMS Reverse Voltage	V_{RMS}	28	V
DC Blocking Voltage	V_{DC}	40	V
Average Forward Output Current	I_{F_AV}	3.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I_{FSM}	80	A

Thermal Characteristics

Parameter	Symbol	TPBSS34AF	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	$^{\circ}\text{C}$

Electrical Characteristics (T = 25°C unless otherwise noted)

Parameter	Symbol	Test Conditions		Typ.	Max.	Unit
Instantaneous Forward Voltage ¹	V_F	$I_F = 3.0A$	@ $T_A = 25^\circ C$	-	0.65	V
Reverse Current ²	I_R	Rated V_R	@ $T_J = 25^\circ C$	-	100	μA
			@ $T_J = 100^\circ C$	-	10	mA

Typical Electrical Characteristic Curves

Fig.1 Forward Current Derating Curve

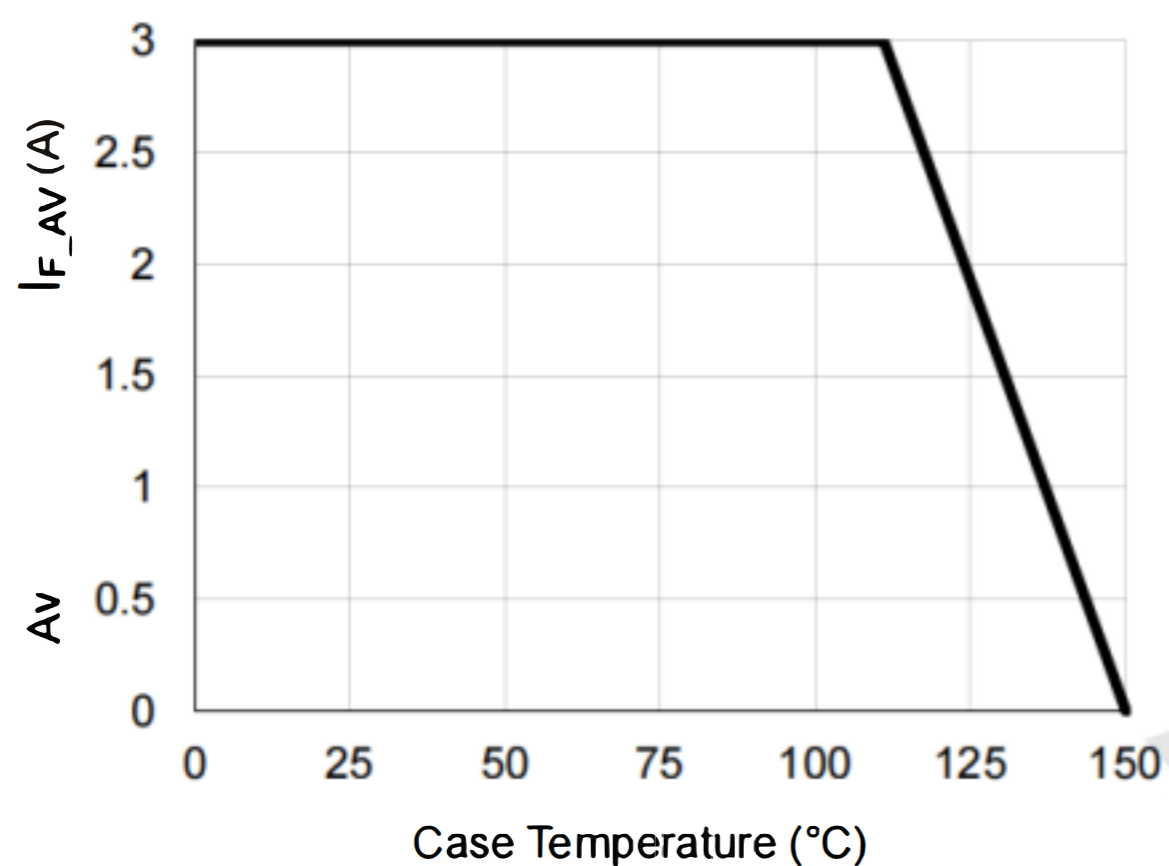


Fig.2 Surge Current Derating Curve

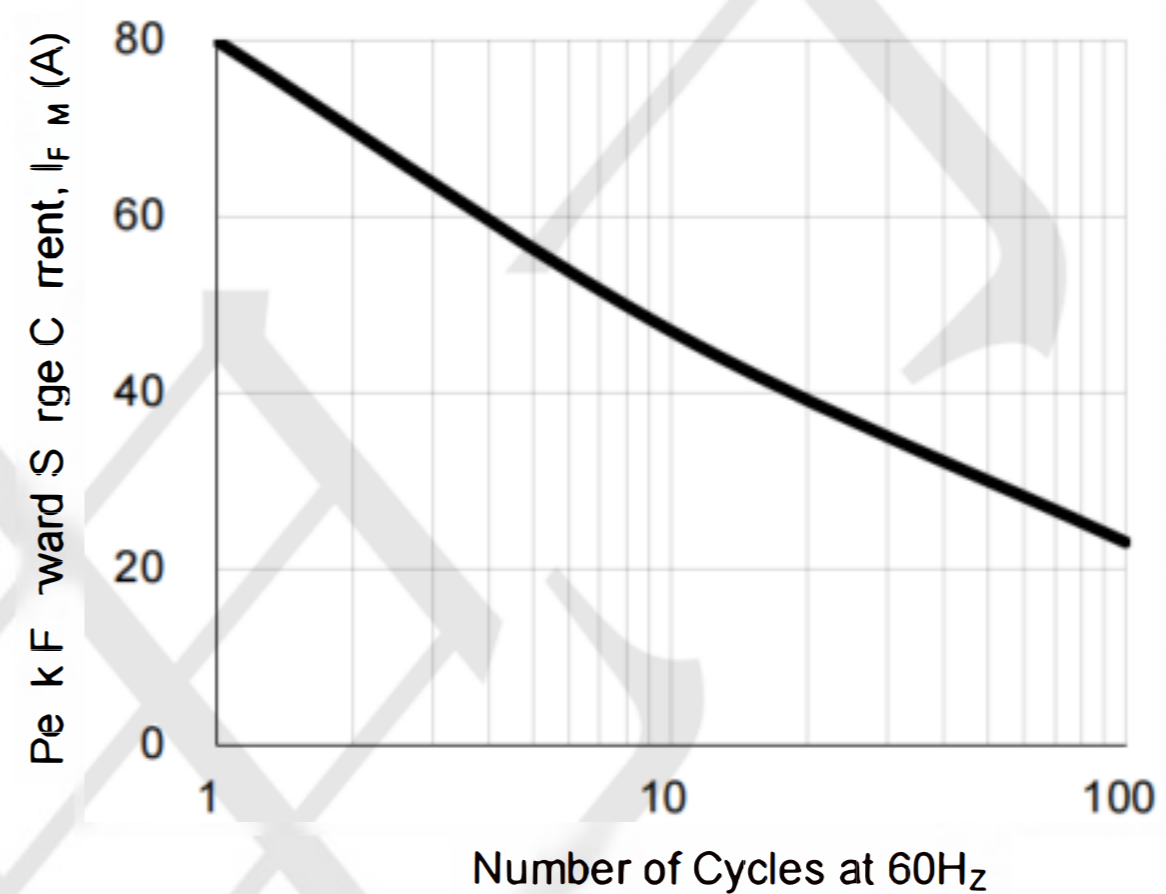


Fig.3 Typical Forward Voltage Characteristics

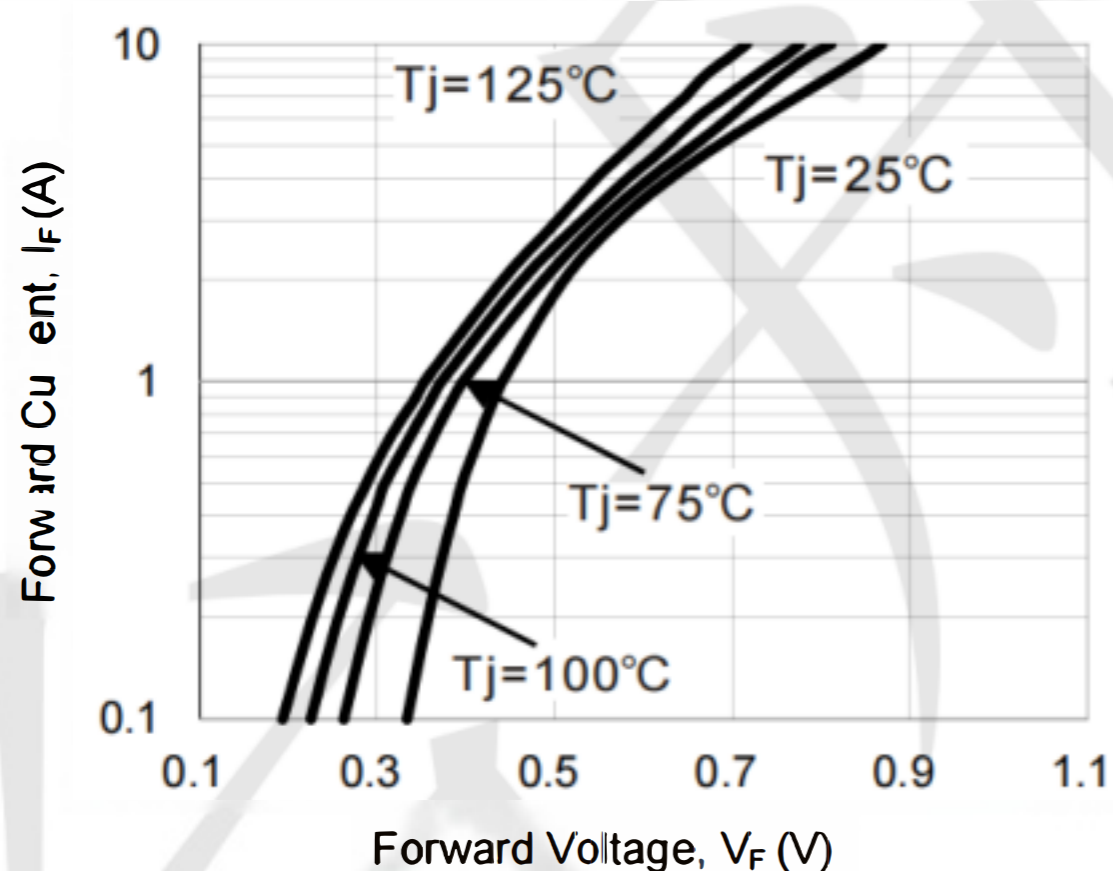
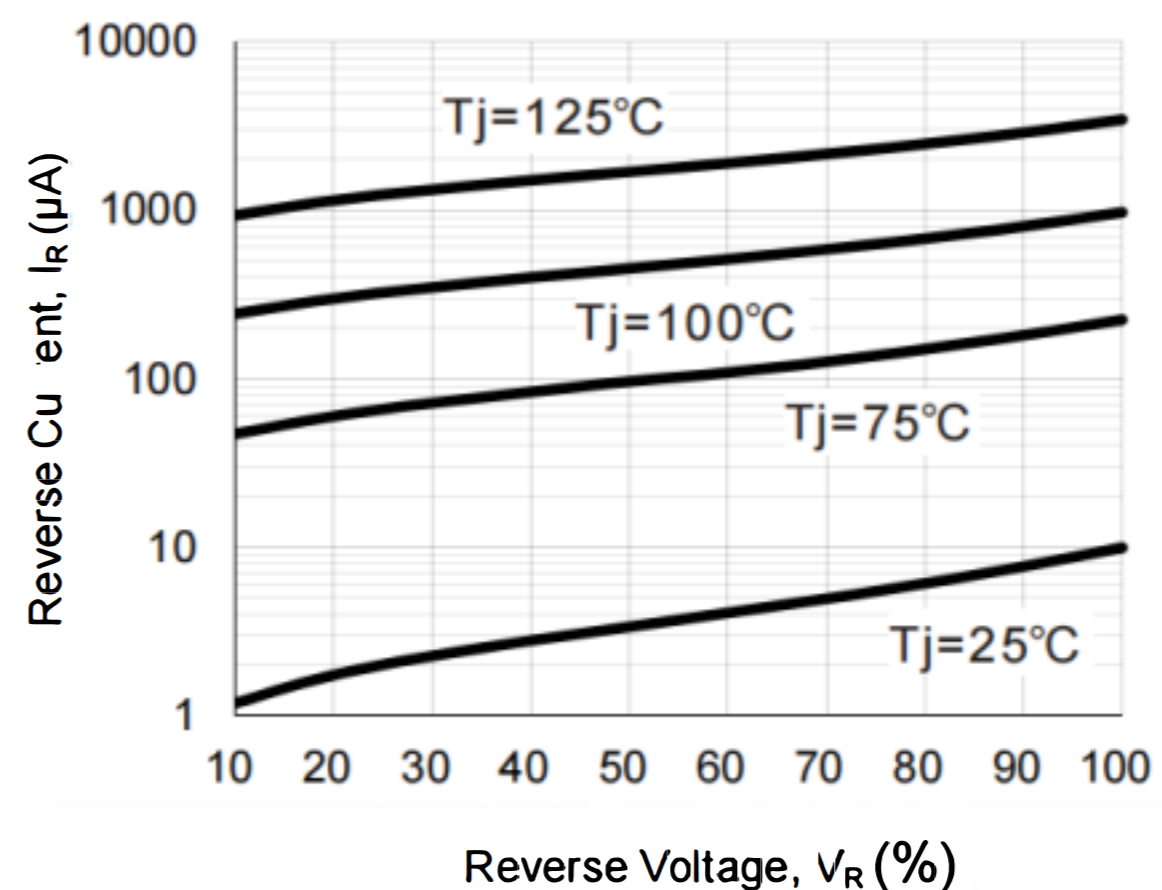
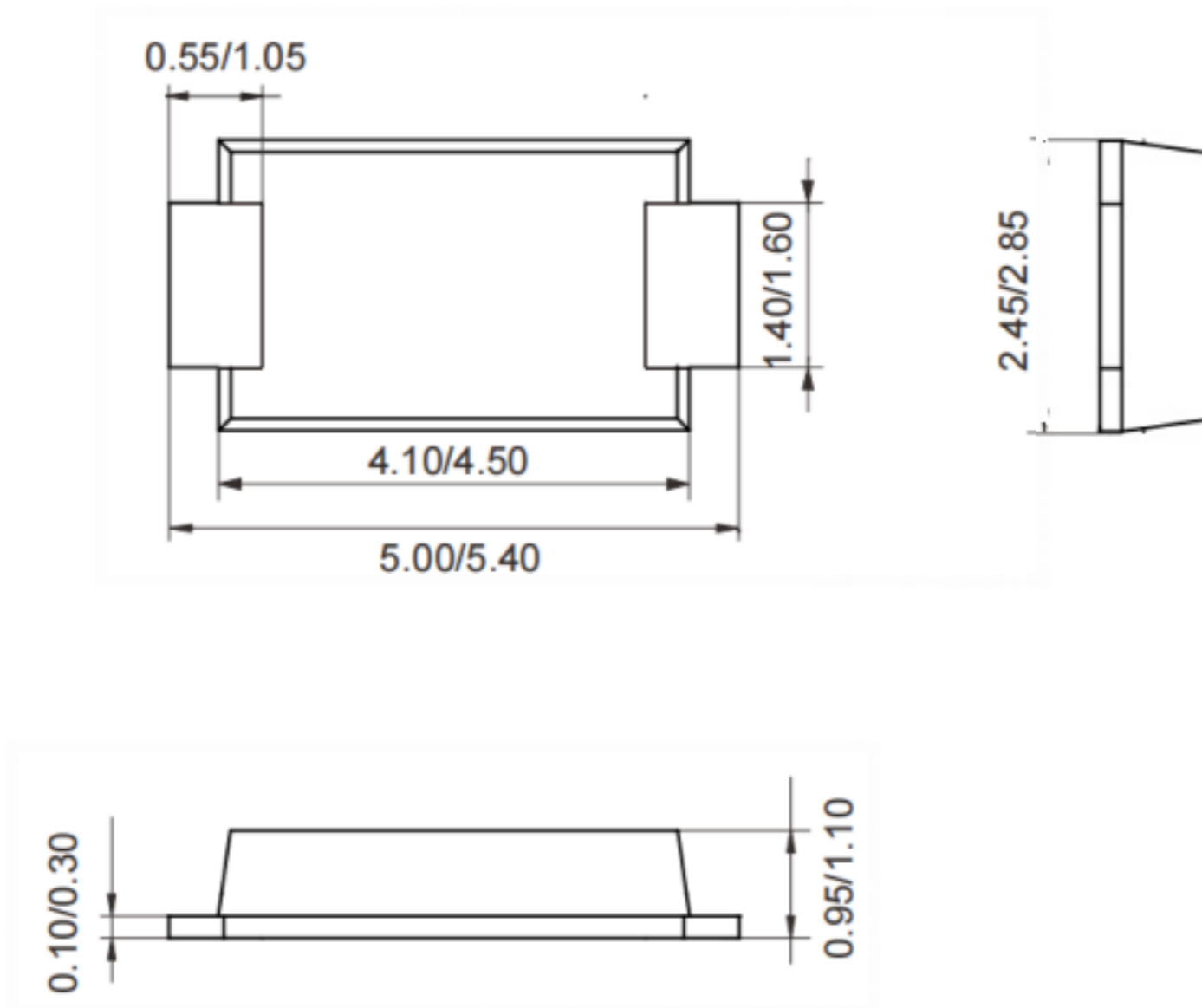


Fig.4 Typical Reverse Characteristics



Outline Drawing - SMAF (Unit mm)



Mounting Pad Layout-SMAF (Unit mm)

