



SK52FU THRU SK525FU

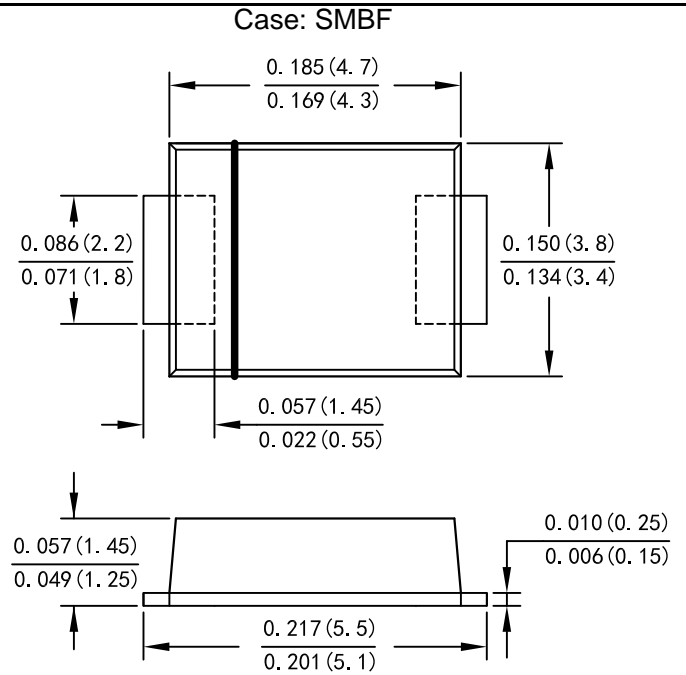
5.0 AMP Surface Mount Schottky Barrier Rectifiers

Features

- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- For Use in Low Voltage Application
- Plastic Case Material has UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: Molded plastic SMBF
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Marking: Type Number



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	SK 52FU	SK 53FU	SK 54FU	SK 545FU	SK 55FU	SK 56FU	SK 58FU	SK 510FU	SK 515FU	SK 520FU	SK 525FU	Unit	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	45	50	60	80	100	150	200	250	V	
Maximum RMS Voltage	V_{RMS}	14	21	28	31	35	42	56	70	105	140	175	V	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	45	50	60	80	100	150	200	250	V	
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$	$I_{F(AV)}$	5.0											A	
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	110											A	
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	50.215											A ² s	
Forward Voltage @ $I_F = 5.0\text{A}$	V_{FM}	0.53			0.67		0.8		0.9		0.92		V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	I_R	0.1						0.05						mA
At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		10						5						
Typical Junction Capacitance (Note 1)	C_J	220						110						pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	95											°C/W	
	$R_{\theta JL}$	13												
	$R_{\theta JC}$	17												
Operating Temperature Range	T_J	-55 to +150											°C	
Storage Temperature Range	T_{STG}	-55 to +150											°C	

Note:

1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C
2. Device mounted on FR-4 substrate, 1" x 1", 2oz, single-sided, PC boards with 0.1" x 0.15" copper pad. For reference only



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Fig. 1 Forward Current Derating Curve

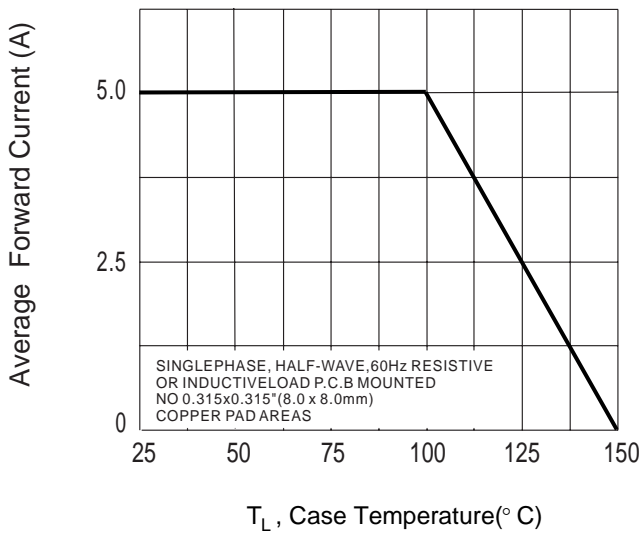


Fig. 2 Typ. Forward Characteristics

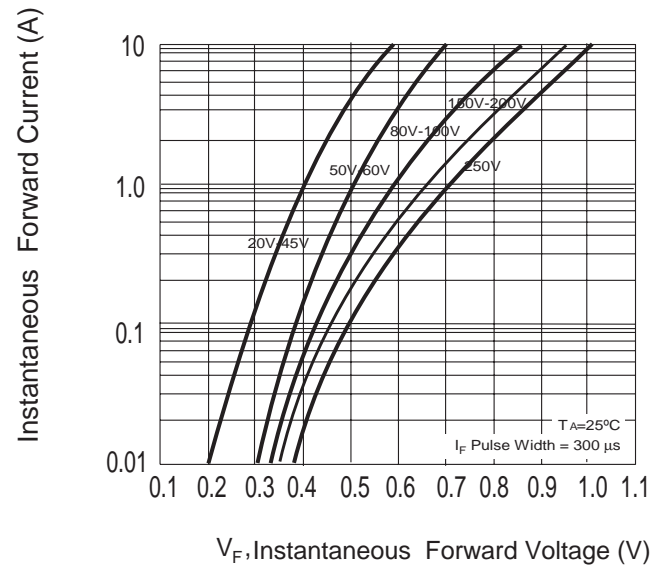


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

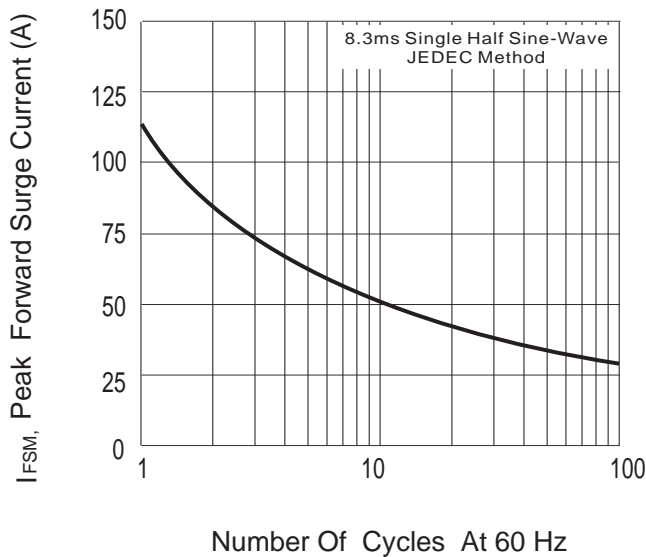


Fig.4 Typical Reverse Characteristics

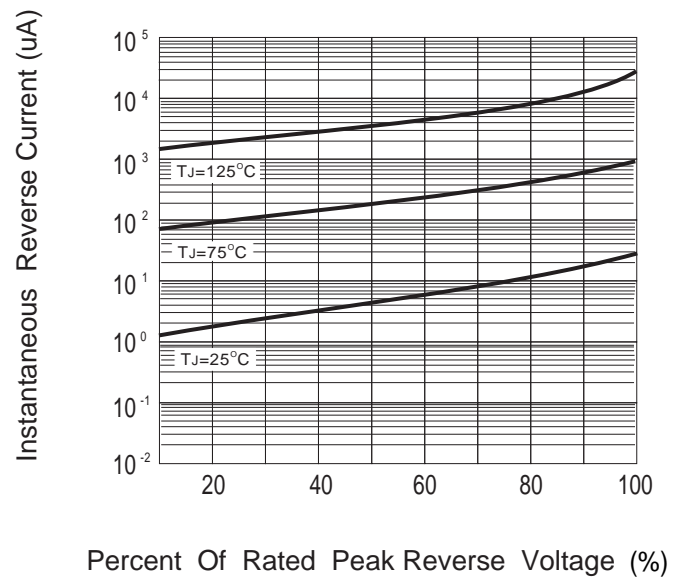
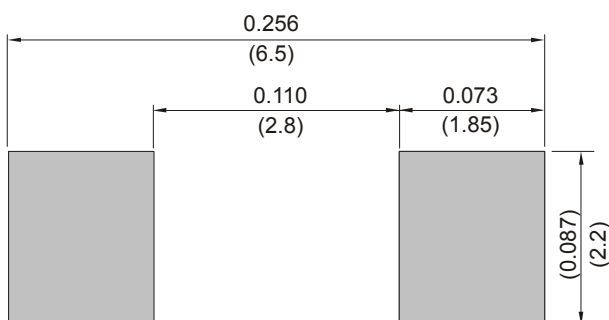


Fig.5 Mounting PAD Layout





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