



SK54FL THRU SK520FL

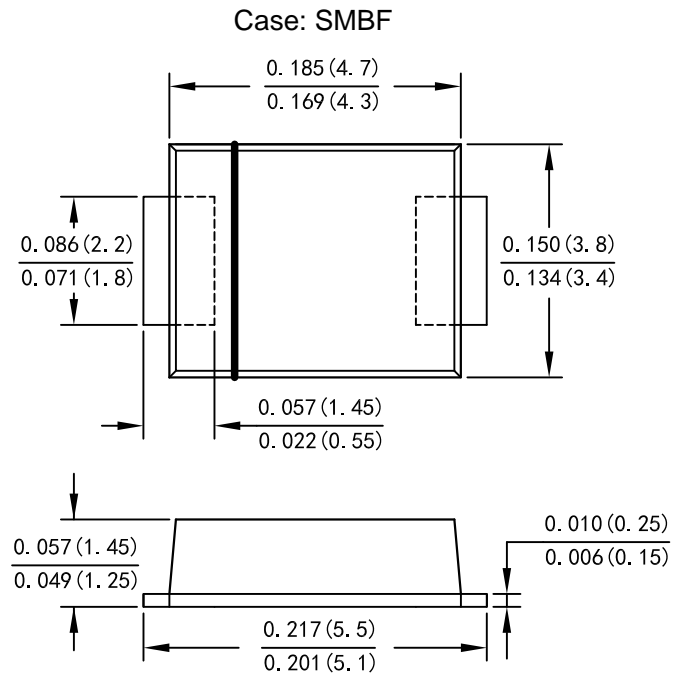
5.0 AMP Surface Mount Schottky Barrier Rectifiers

Features

- High current capacity, low V_F
- 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
- Making: Type Number



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 54FL	SK 545FL	SK 55FL	SK 56FL	SK 58FL	SK 510FL	SK 515FL	SK 520FL	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	32	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	80	100	150	200	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}	120								A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	59.76								A^2s
Forward Voltage @ $I_F = 5.0\text{A}$	V_{FM}	0.45		0.5		0.6		0.85		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	300				170				pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	65								$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to +150								$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150								$^\circ\text{C}$

Note:

1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. Thermal Resistance from Junction to Ambient at 0.375(9.5mm) lead length .



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Fig. 1 Forward Current Derating Curve

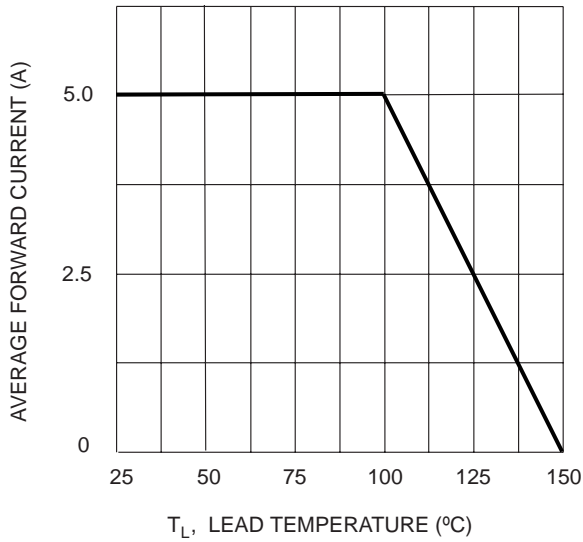


Fig. 2 Typ. Forward Characteristics

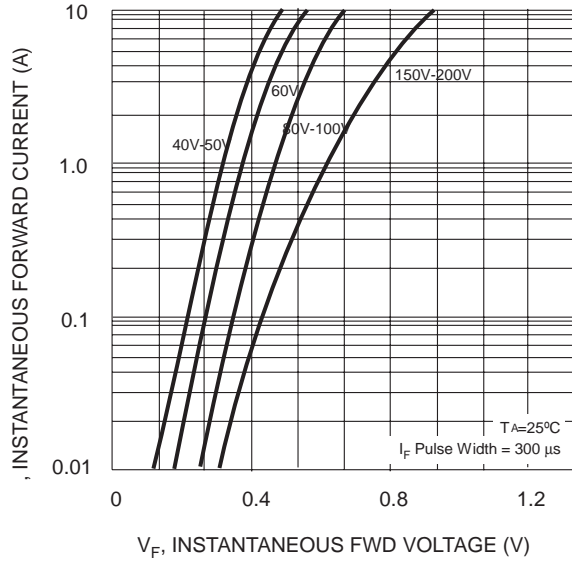


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

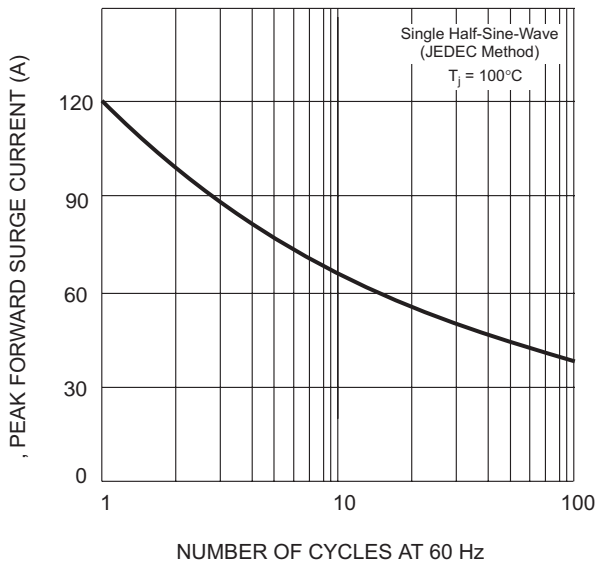


FIG.4 TYPICAL REVERSE CHARACTERISTIC

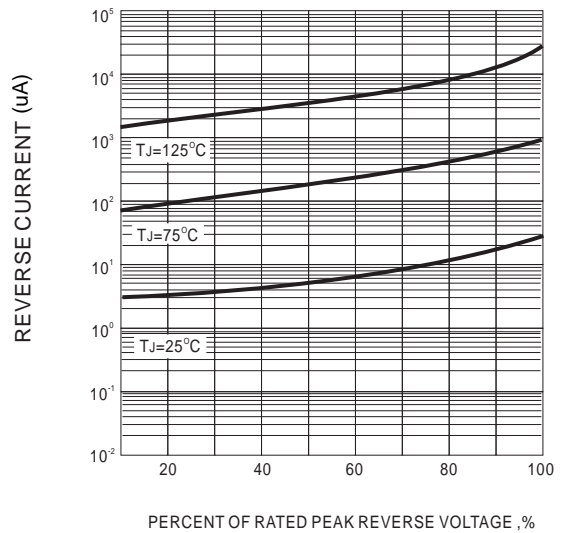
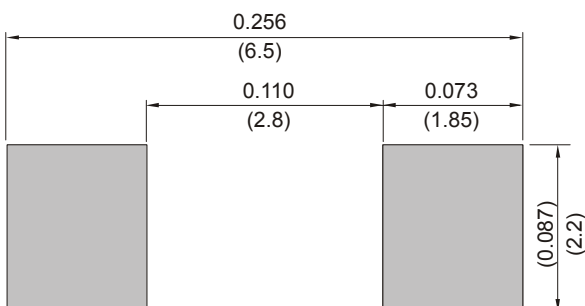


FIG.5 MOUNTING PAD LAYOUT





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