



# SK54FL THRU SK520FL

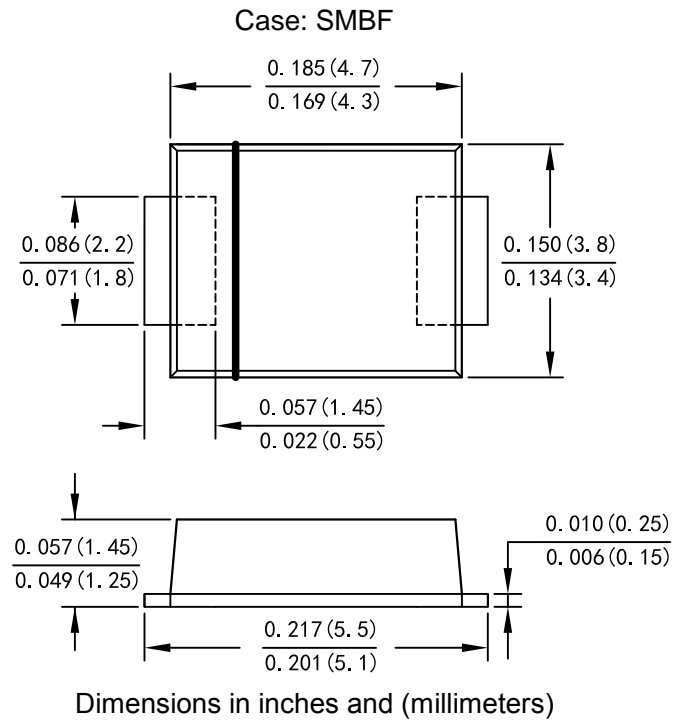
## 5.0 AMP Surface Mount Schottky Barrier Rectifiers

### 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								$\text{A}^2\text{s}$
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

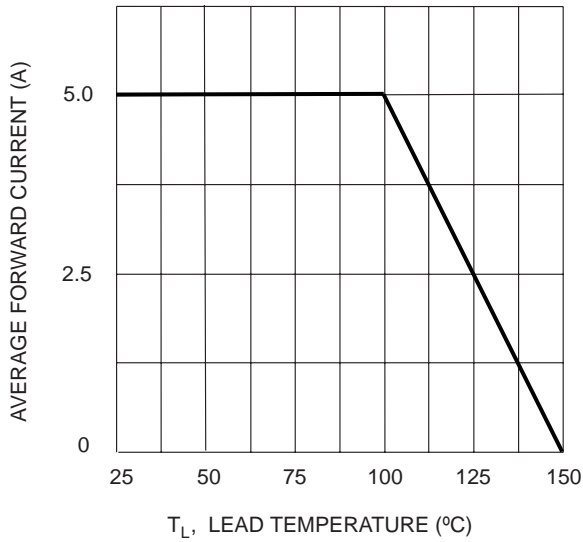


Fig. 2 Typ. Forward Characteristics

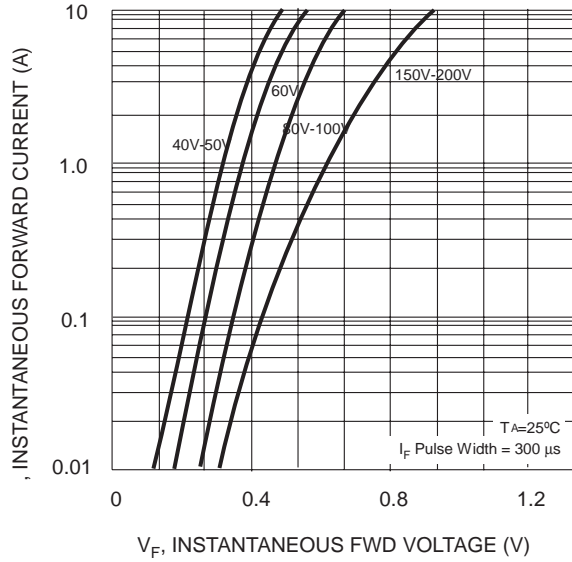


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

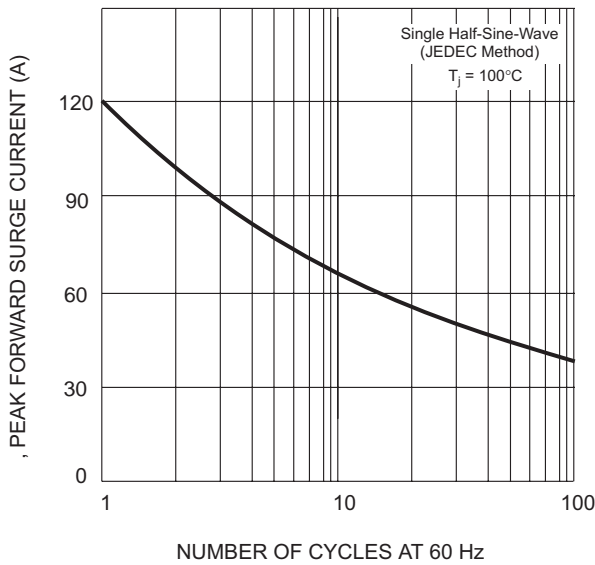


FIG.4 TYPICAL REVERSE CHARACTERISTIC

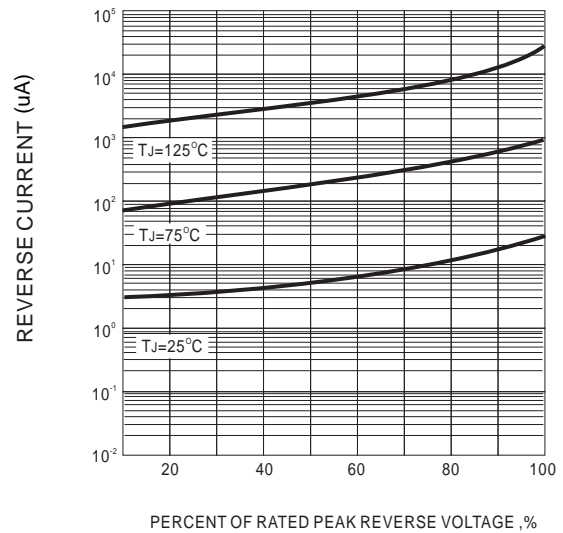
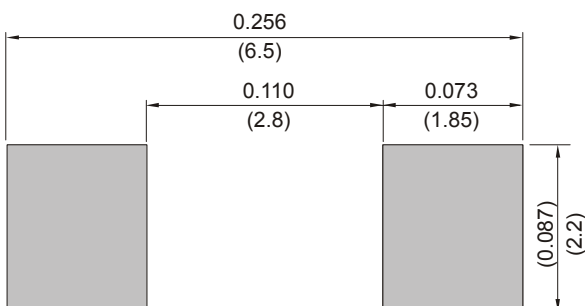


FIG.5 MOUNTING PAD LAYOUT





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