

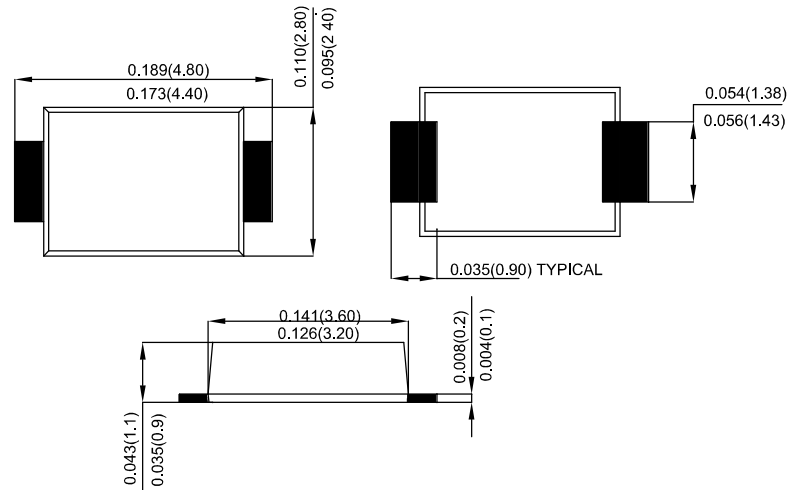
### Features

- Schottky Brrier Chip
- Low Power Loss,High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 100APeak
- Plastic Case Material has UL Flammability Classification Rating 94V-0

### Mechanical Data

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

### SMAF



### 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	S 52	S 53	S 54	S 545	S 55	S 56	S 58	S 510	S 515	S 520	S 525	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 @ $T_L=90^\circ C$	$I_{F(AV)}$	5.0											A	
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100											A	
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	41.500											A <sup>2</sup> s	
Forward Voltage @ $I_F=5.0A$ (Note 1)	$V_{FM}$	0.55			0.7			0.85		0.92		0.95	V	
Peak Reverse Current @ $T_A=25^\circ C$	$I_R$	0.1						0.05						mA
At Rated DC Blocking Voltage @ $T_A=100^\circ C$		10						5						
Typical Junction Capacitance	$C_J$	28											pF	
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$	88											°C/W	
Operating Temperature Range	$T_J$	-55 to +150											°C	
Storage Temperature Range	$T_{STG}$	-55 to +150											°C	

Note: 1.Pulse Test with PW=300usec,1%Duty Cycle.

2.Mounted on P.C.Board with 5.0 mm<sup>2</sup> (0.13mm thick) copper pad areas.

Fig. 1 Forward Current Derating Curve

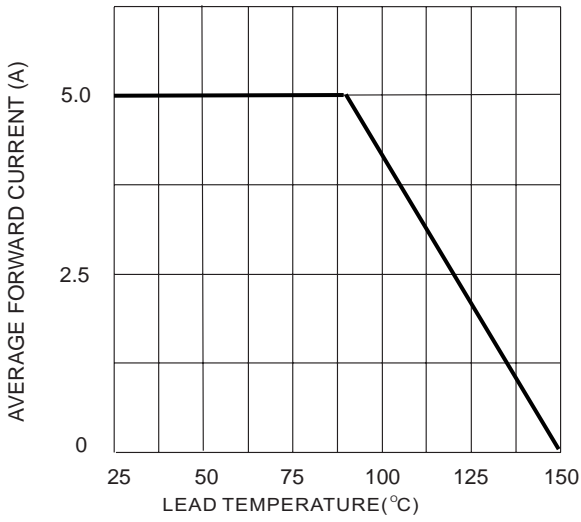


Fig. 2 Typ. Forward Characteristics

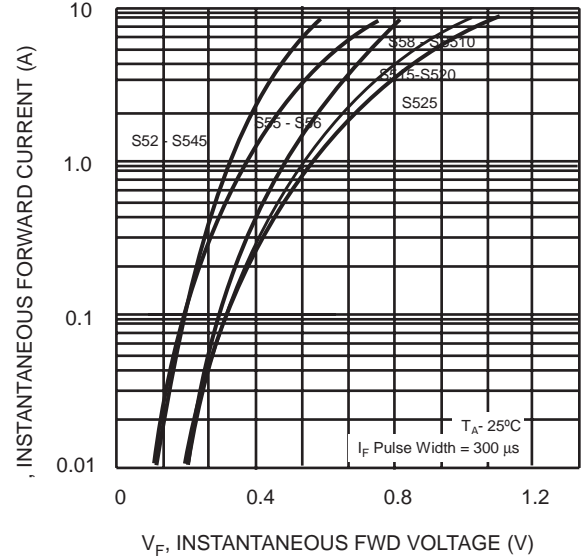


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

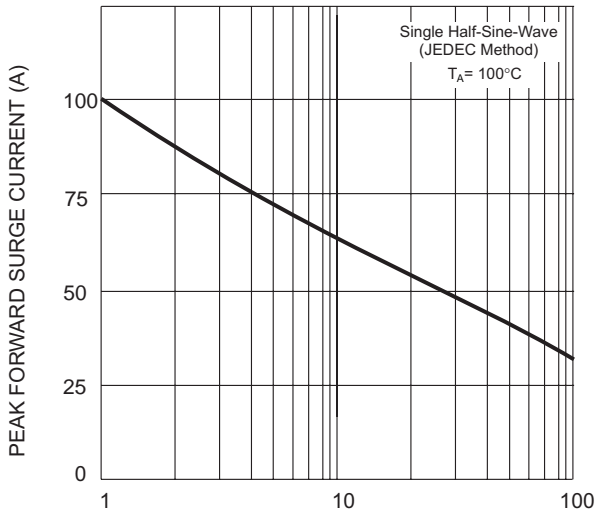


Fig. 4 Typical Reverse Characteristics (per element)

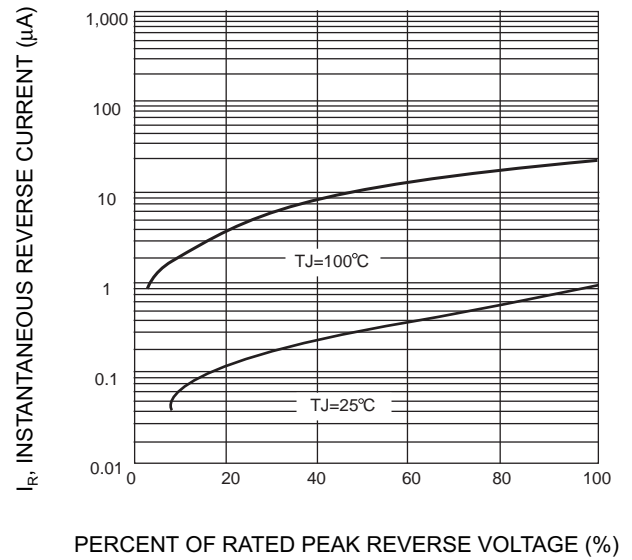
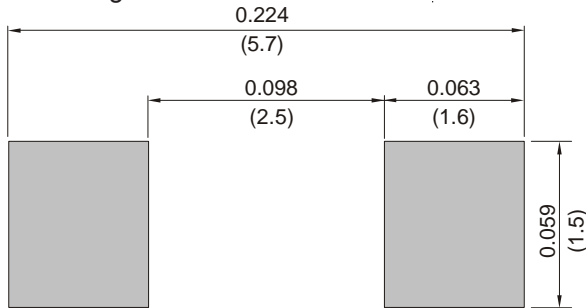


Fig. 5 TYPICAL CAPACITANCE



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