

S52U THRU S525U

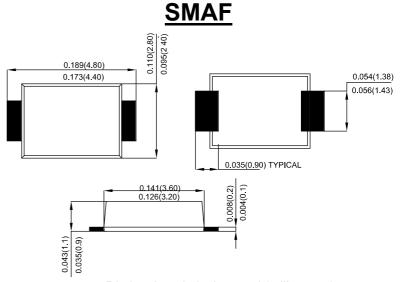
5.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

- · Schottky Brrier Chip
- · Low Power Loss, High Efficiency
- · Ideally Suited for Automatic Assembly
- · Surge Overload Rating to 110A Peak
- 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



Dimiensions in inches and (milimeters)

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 52U	S 53U	S 54U	S 545U	S 55U	S 56U	S 58U	S 510U	S 515U	S 520U	S 525U	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∟=90°C	F(AV)	5.0										Α	
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	Ігѕм	110									Α		
I ² t Rating for Fusing (t < 8.3ms)	l²t	50.215										A ² s	
Forward Voltage @IF=5.0A	V _{FM}	0.53			0.67	0.82		.90	0.92	V			
Peak Reverse Current @T _A =25°C	_	0.1 0.05								- mA			
At Rated DC Blocking Voltage @TA = 100 °C	I R	10 5								IIIA			
Typical Junction Capacitance (Note1)	Сл	220 115								pF			
Typical Thermal Resistance (Note 2)	Reja	88										°C /W	
Operating Temperature Range	ТJ	-55 to+150										$^{\circ}\mathbb{C}$	
Storage Temperature Range	Tstg	-55 to +150										$^{\circ}$ 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"*1", 2oz, single-sided, PC boards with 0.06"*0.09" copper pad.



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Fig. 1 Forward Current Derating Curve

(V) 5.0

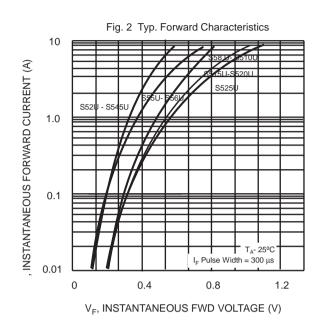
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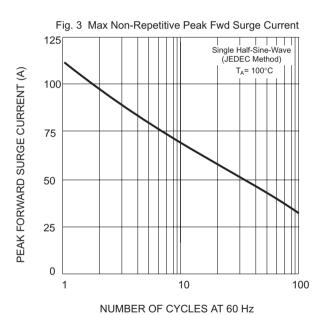
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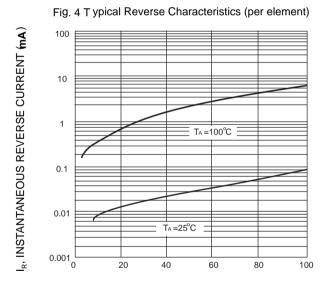
50

75

LEAD TEMPERATURE(°C)







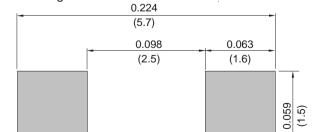


Fig.5 TYPICAL CAPACITANCE

PERCENT OF RATED PEAK REVERSE VOLTAGE (%)

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