



S52U THRU S525U

5.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

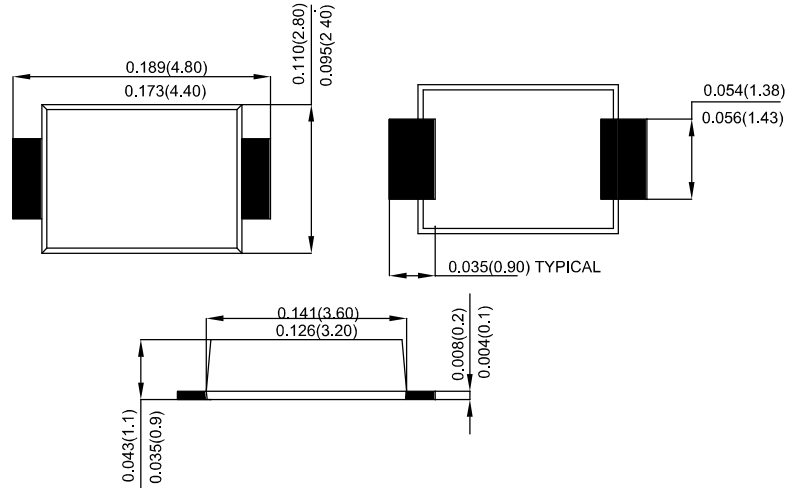
Features

- 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

SMAF



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	S52U	S53U	S54U	S545U	S55U	S56U	S58U	S510U	S515U	S520U	S525U	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°C	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 ² t Rating for Fusing (t < 8.3ms)	I ² t	50.215											A ² s
Forward Voltage @IF=5.0A	V _{FM}	0.53				0.67		0.82		0.90		0.92	V
Peak Reverse Current @T _A =25°C	I _R	0.1						0.05					mA
At Rated DC Blocking Voltage @T _A =100°C		10						5					
Typical Junction Capacitance (Note 1)	C _J	220						115					pF
Typical Thermal Resistance (Note 2)	R _{θJA}	88											°C/W
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"*1", 2oz, single-sided, PC boards with 0.06"*0.09" copper pad.



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Fig. 1 Forward Current Derating Curve

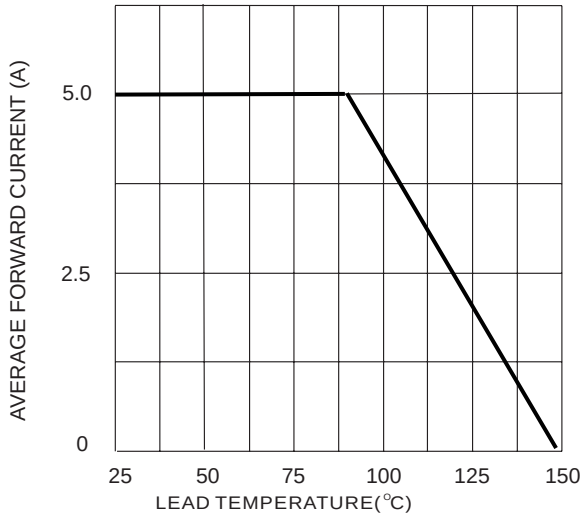


Fig. 2 Typ. Forward Characteristics

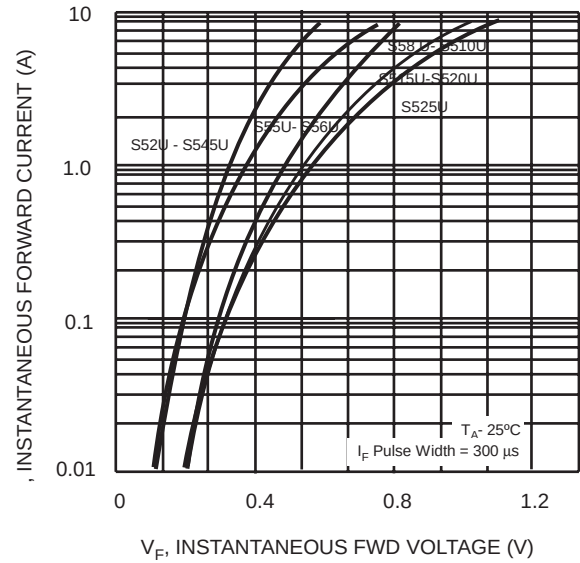


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

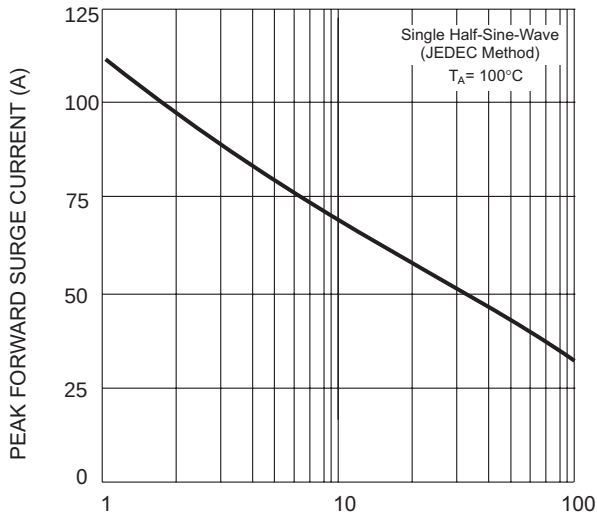


Fig. 4 Typical Reverse Characteristics (per element)

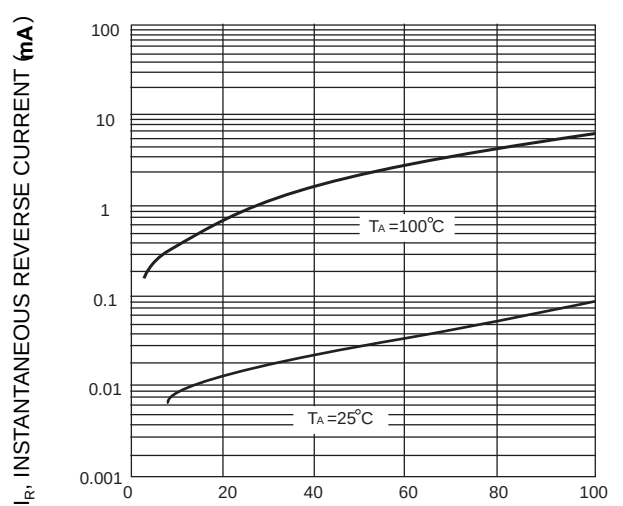
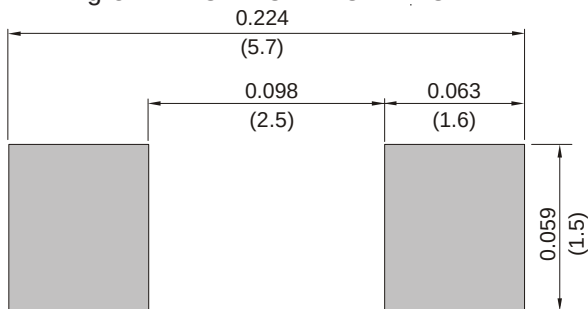


Fig.5 TYPICAL CAPACITANCE





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