



SR5100UL

LOW VF SCHOTTKY RECTIFIERS



VOLTAGE 100 Volts **CURRENT** 5.0 Amperes

Marking

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260 C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

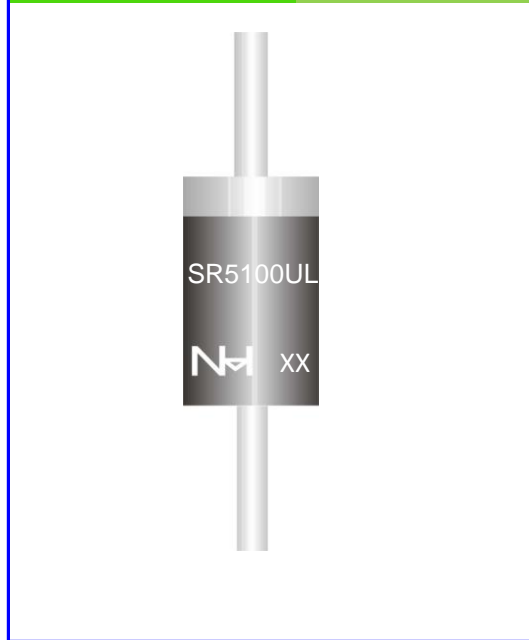
MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041ounce, 1.15 grams

TYPICAL APPLICATIONS

- For use in low voltage ,high frequency inverters ,DC/DC converters, free wheeling ,and polarity protection applications

DO-27(DO-201AD)



Maximum Ratings and Electrical Characteristics(Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	SR5100UL	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum average forward rectified current(see fig.2)	$I_{F(AV)}$	5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	150	A
Maximum instantaneous forward voltage at 5.0 A (Note 1)	V_F	0.62	V
Maximum instantaneous reversecurrent at rated DC blockingvoltage (Note 2)	I_{RRM}	TA=25°C	0.1
		TA=100°C	25
Typical junction capacitance (Note 3)	C_J	400	pF
Operating junction and Storage temperature range	T_J	-65 to +150	°C
Storage temperature range	T_{STG}	-65 to +150	

Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	SR5100UL	Unit
Typical thermal resistance (Note 4)	$R_{\theta JA}$	25	°C/W
	$R_{\theta JL}$	8	

- Note: 1.Pulse test: 300 μs pulse width,1% duty cycle
 2.Pulse test: pulse width≤40ms
 3.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 4.Thermal resistance from junction to lead vertical P.C.B. mounted , 0.375"(9.5mm)lead length

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RATING AND CHARACTERISTIC CURVES

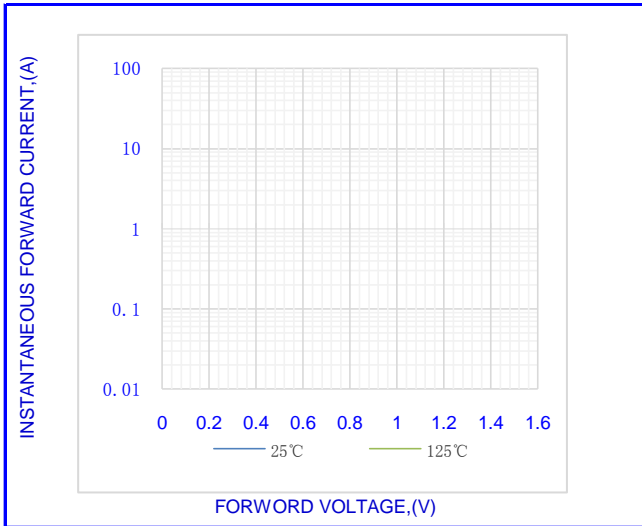


Fig.1-TYPICAL INSTANTANEOUS FORWARD

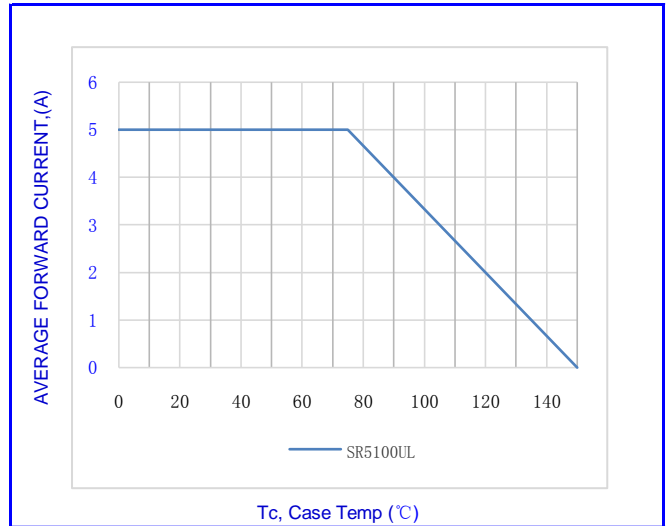


Fig.2- FORWARD CURRENT DERATING CURVE

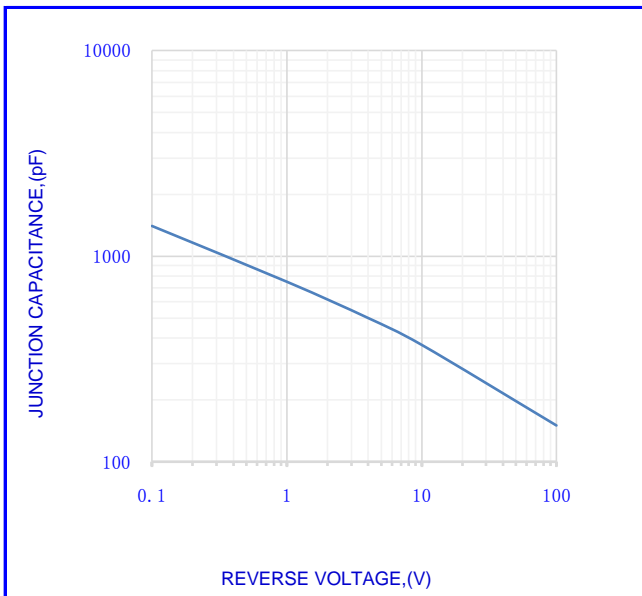


Fig.3- TYPICAL JUNCTION CAPACITANCE

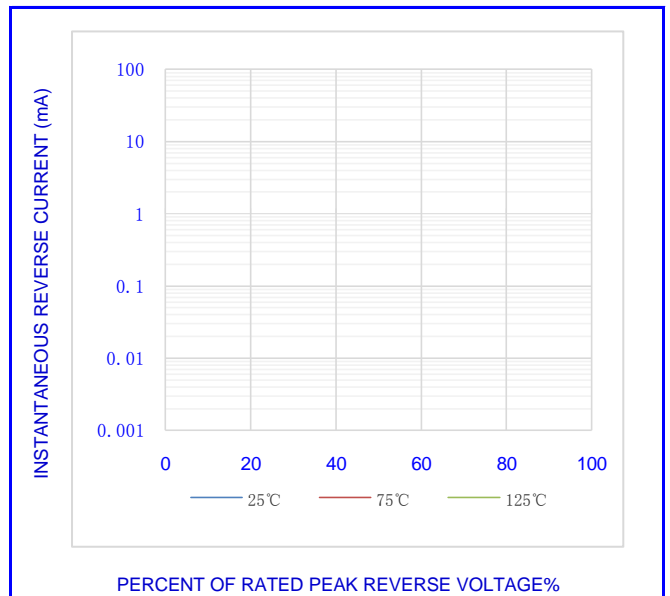


Fig.4- TYPICAL REVERSE CHARACTERISTICS

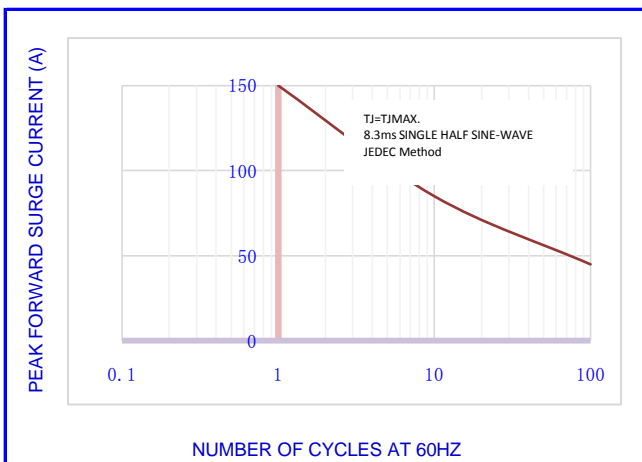


Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

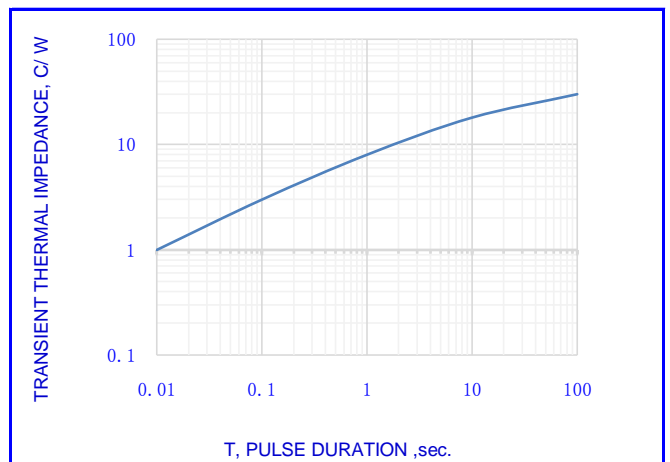


Fig.6-TYPICAL TRANSIENT THERMAL IMPEDANCE