

SR1080L
LOW VF SCHOTTKY RECTIFIERS



VOLTAGE 80 Volts **CURRENT** 10.0 Amperes **DO-27(DO-201AD)** Unit:Inch(mm)

FEATURES

- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High reliability
- ◆ High surge current capability
- ◆ Epitaxial construction

MECHANICAL DATA

Case : Molded plastic

Epoxy : UL 94V-0 rate flame retardant

Lead : Axial leads, solderable per MIL-STD-202, method 208 guranteed

Polarity : Color band denotes cathode end

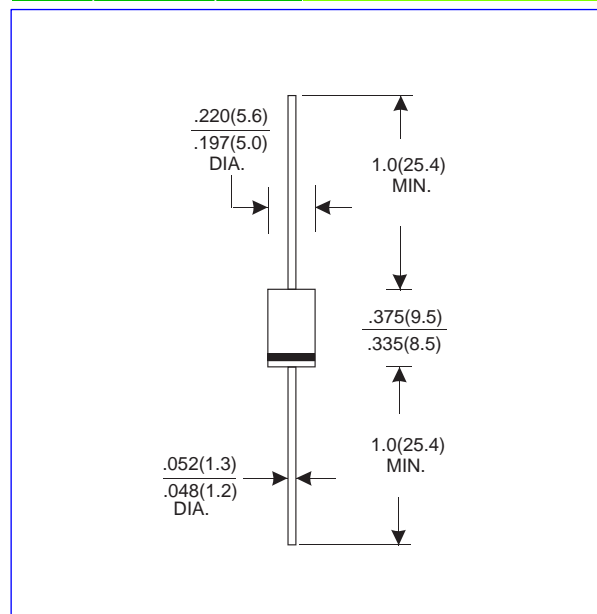
Mounting Position : Any

Weight : 1.10 grams

Both normal and Pb free product are available:

Normal:80~95%Sn,5~20%Pb

Pb free :99 Sn above can meet Rohs enviroment substance directive request



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

Parameter	Symbol	SR1080L	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	80	V
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	I _{F(AV)}	10.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I _{FSM}	150	A
Operating junction temperature range	T _J	-55 to+150	°C
Storage temperature range	T _{stg}	-55 to+150	°C

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

Parameter	Test Conditions	Symbol	TYP.	MAX.	Unit	
Instaneous forward voltage	I _F =10.0A	V _F ¹⁾	T _A =25°C	0.58	0.62	V
			T _A =100°C	0.55	—	
			T _A =125°C	0.54	—	
Reverse current	V _R =80V	I _R ²⁾	T _A =25°C	15	200	μA
			T _A =100°C	2	—	mA
			T _A =125°C	7	—	
Typical junction capacitance	4V, 1MHz	C _J	570		pF	

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle
2.Pulse test: pulse width≤40ms

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RATING AND CHARACTERISTIC CURVES

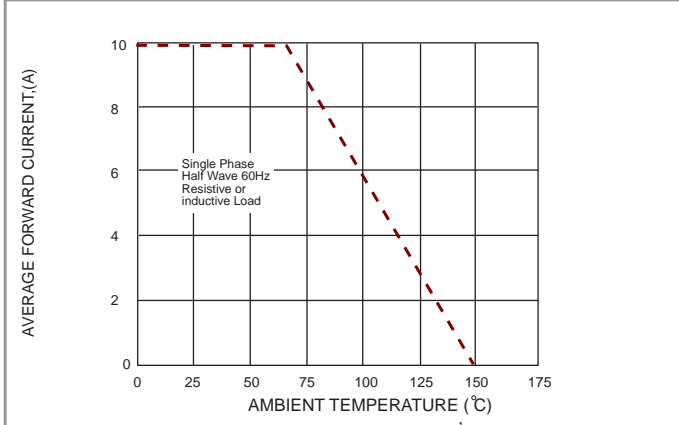


Fig.1 FORWARD CURRENT DERATING CURVE

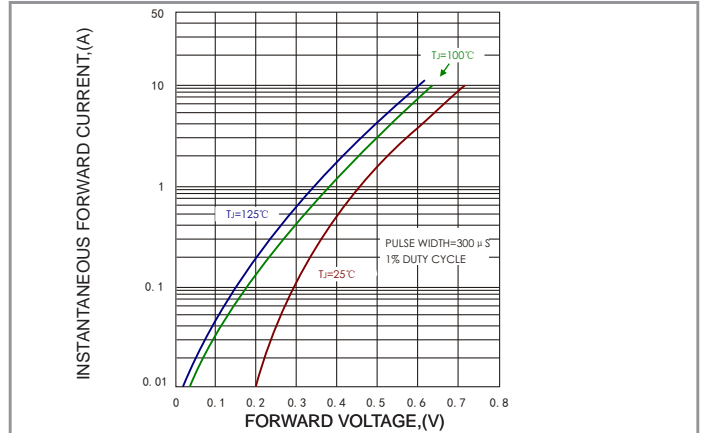


Fig.2-TYPICAL INSTANTANEOUS FORWARD

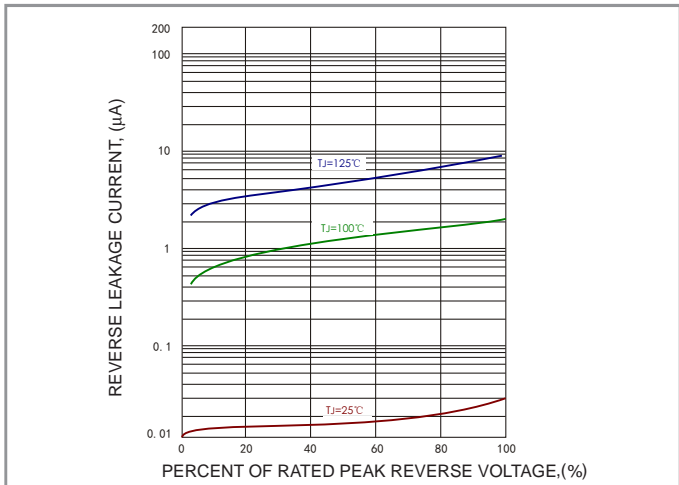


Fig.3 TYPICAL REVERSE CHARACTERISTICS

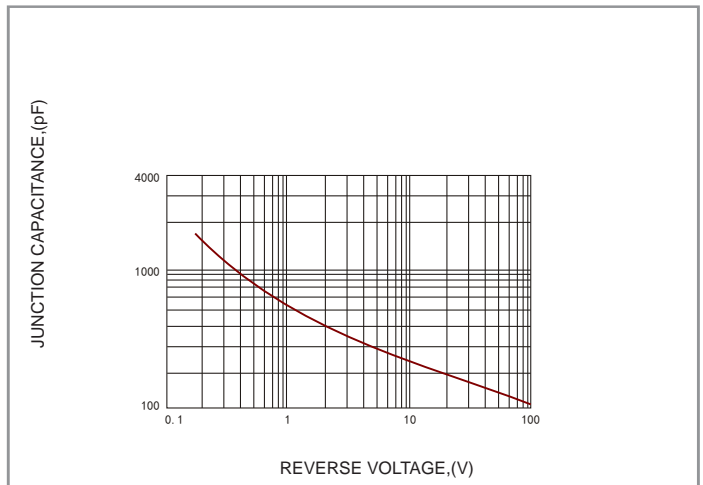


Fig.4 TYPICAL JUNCTION CAPACITANCE

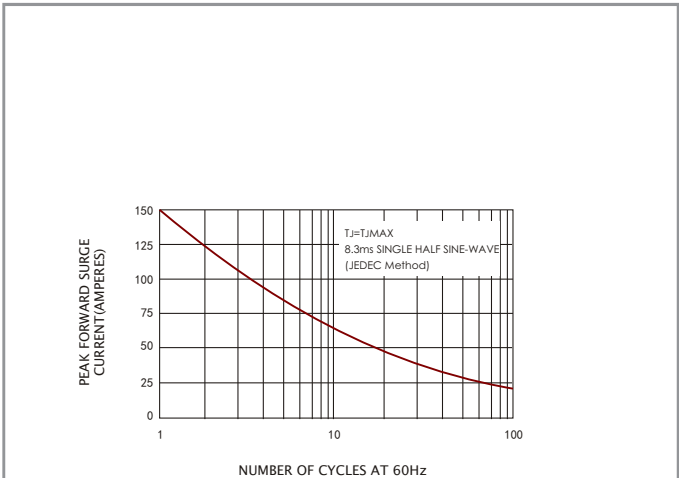


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

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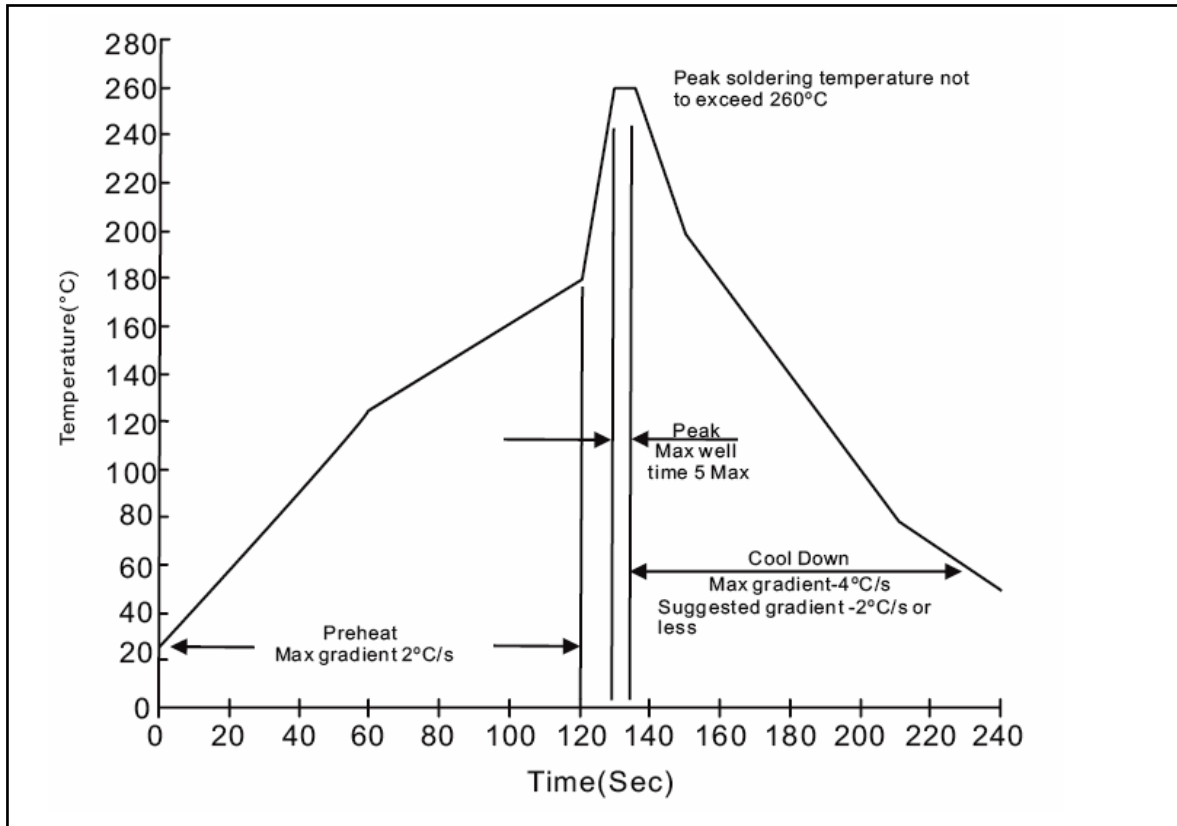
Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	SR1080L	Unit
Typical thermal resistance ³⁾	R _{θJA}	25.0	°C/W
	R _{θJL}	8.0	

3.Thermal resistance from junction to lead vertical P.C.B. mounted , 0.375"(9.5mm)lead length

SUGGESTED THERMAL PROFILES FOR SOLDERING PROCESSES

LEAD FREE TEMPERATURE PROFILE WAVE-SOLDERING



ORDER INFORMATION

• Packing information

Product code	Pack	Box Size L*W*H(mm)	Quantity(pcs/box)	Carton SizeL*W*H(mm)	Quantity(box/carton)
SR1080L-DO-201AD	T/B	264*74*135	1000 or 1250	400*267*286	10

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