SEMICONDUCTOR

SR2100L

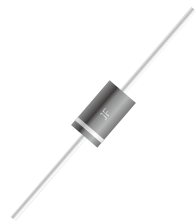
LOW VF SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 100 Volts
Forward Current - 2.0Amperes

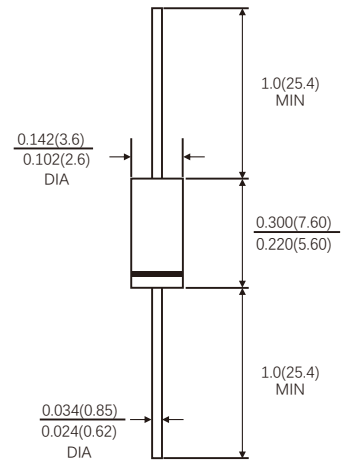
FEATURES

- 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
- High current capability ,low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260℃/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

Pb RoHS COMPLIANT



DO-15



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC DO-15 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.014ounce, 0.39 gram

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	2.0A
V_{RRM}	100V
I_{FSM}	50A
V_F at I_F=2.0A,Typ	0.71V
T_{JMAX}	150℃

TYPICAL APPLICATIONS

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

MAXIMUM RATINGS

(Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_{F(AV)}$	2.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	50	A
Operating junction temperature range	T_J	-55 to+150	℃
Storage temperature range	T_{stg}	-55 to+150	℃

ELECTRICAL CHARACTERISTCS (TA=25℃ Unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instaneous forward voltage	IF=2.0A	TJ=25℃	VF 1)	0.71	0.75	V
		TJ=100℃		0.59	-	
		TJ=125℃		0.55	-	
Reverse current	VR=100V	TJ=25℃	IR 2)	-	5.0	μA
		TJ=100℃		-	0.5	mA
		TJ=125℃		-	1.5	
Typical junction capacitance	4V,1MHz		CJ	91		pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Pulse test: pulse width≤40ms

THERMAL CHARACTERISTCS

Parameter	Symbol	SR2100L	Unit
Typical thermal resistance 3)	$R_{\theta JA}$	35.0	℃/W
	$R_{\theta JL}$	15.0	

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

AVAILABALE PACK INFORMATION

Product code	Pack	Box Size L*W*H(mm)	Quantity(pcs/box)	Carton SizeL*W*H(mm)	Quantity(box/carton)
SR2100L-DO-15	B/P	200*80*21	500	440*210*250	50
SR2100L-DO-15	T/B	270*77*145	3000	410*275*325	10

RATINGS AND CHARACTERISTIC OF SR2100L

FIG.1-FORWARD CURRENT DERATING CURVE

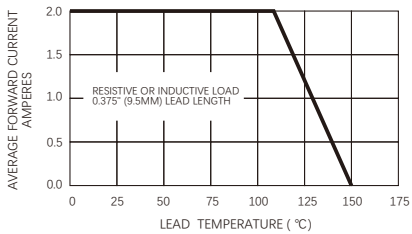


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

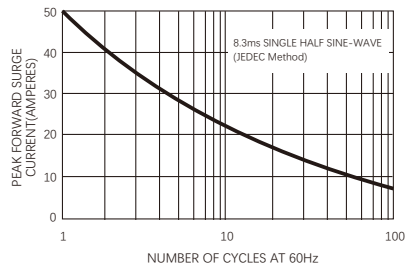


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

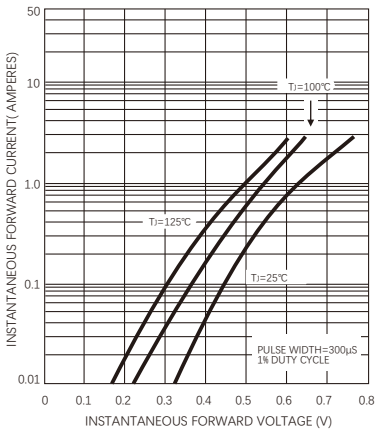


FIG.4-TYPICAL REVERSE CHARACTERISTICS

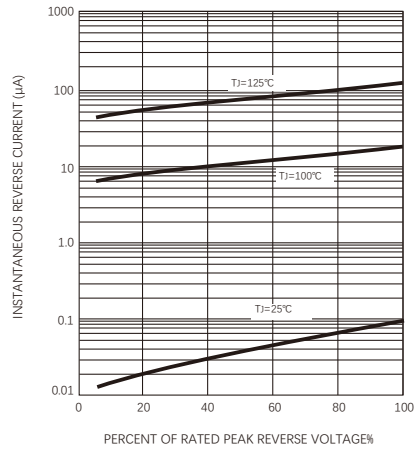
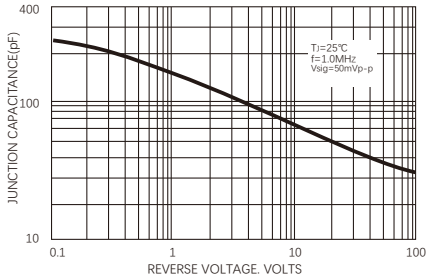


FIG.5-TYPICAL JUNCTION CAPACITANCE



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