SR5150L

LOW VF SCHOTTKY BARRIER RECTIFER

Reverse Voltage - 150 Volts Forward Current - 5.0Amperes

FEATURES

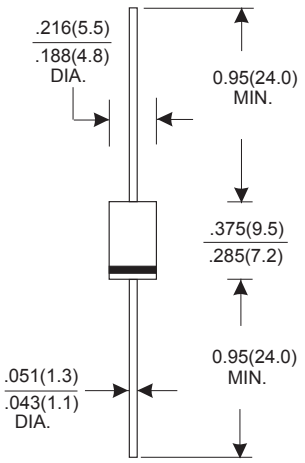
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260℃/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

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

VOLTAGE RANGE
150 Volts
CURRENT
5.0 Amperes

DO-27



Dimensions in inches and (millimeters)

MAXIMUM RATINGS(TA =25 °C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	150	V
Maximum rms voltage	V_{RMS}	70	V
Maximum dc blocking voltage	V_R	150	V
Maximum average forward rectified current	$I_{F(AV)}$	5	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120	A
Typical thermal resistance (Note 1)	$R_{\Theta JL}$	23	°C/W
Operating junction temperature range	T_J	-55 to + 150	°C
Storage temperature range	T_{STG}	-55 to + 150	°C

Note : 1.The testing condition of the thermal resistance (junction to lead) is based on 10 mm lead length between two 10cm x 10cm x0.5mm copper pad.

RATINGS AND CHARACTERISTIC OF SR5150L

ELECTRICAL CHARACTERISTCS （TA=25℃ Unless otherwise noted）

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instaneous forward voltage	I_F=5.0A	T_A=25℃	V_F 1)	0.80	0.85	V
		T_A=100℃		0.69	–	
		T_A=125℃		0.66	–	
Reverse current	V_R=150V	T_A=25℃	I_R 2)	–	10	μA
		T_A=100℃		–	200	
		T_A=125℃		–	1000	
Typical junction capacitance	4V, 1MHz		C_J	370		pF

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

THERMAL CHARACTERISTCS （TA=25℃ Unless otherwise noted）

Parameter	Symbol	SR5150L	Unit
Typical thermal resistance 3)	$R_{\theta JA}$	25.0	℃/W
	$R_{\theta JL}$	8.0	

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)
SR5150L-DO-201AD	B/P	190*80*21	200	433*203*230	50
SR5150L-DO-201AD	T/B	264*74*135	1000	400*267*286	10

RATINGS AND CHARACTERISTIC OF SR5150L

FIG.1-FORWARD CURRENT DERATING CURVE

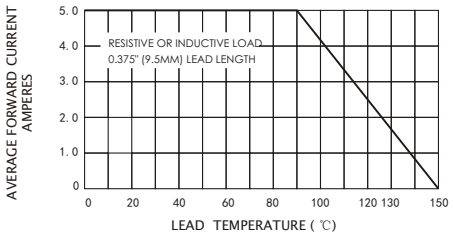


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

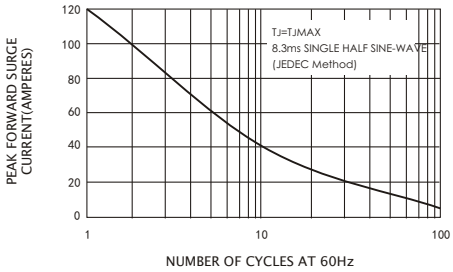


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

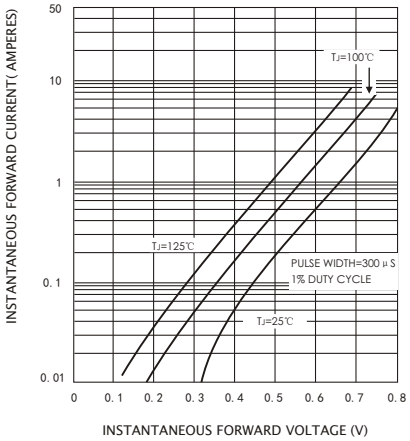


FIG.4-TYPICAL REVERSE CHARACTERISTICS

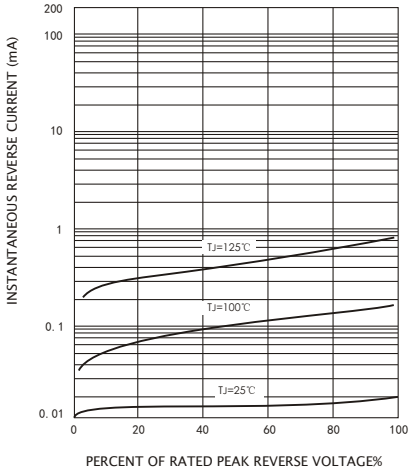


FIG.5-TYPICAL JUNCTION CAPACITANCE