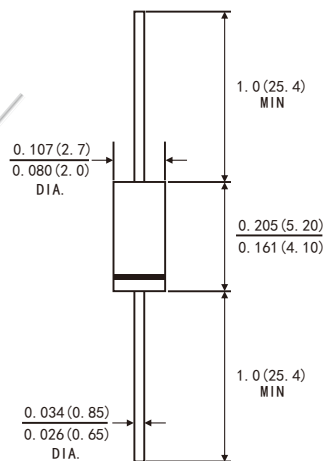


FEATURES

- 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 and WEEE 2012/19/EU



DO-41



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012ounce, 0.33 gram

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)

PRIMARY CHARACTERISTICS	
$I_F(AV)$	1.0A
V_{RRM}	50V
I_{FSM}	40A
V_F at $I_F=1.0A$	0.37V
T_{JMAX}	150℃

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	V
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_F(AV)$	1.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	40	A
Operating junction temperature range	T_j	-55 to+150	℃
Storage temperature range	T_{stg}	-55 to+150	℃

RATINGS AND CHARACTERISTIC OF SR150L

ELECTRICAL CHARACTERISTICS (T_A=25℃ Unless otherwise noted)

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instaneous forward voltage	I _F =1.0A	T _A =25℃	V _F ¹⁾	0.45	0.47	V
		T _A =100℃		0.39	0.41	
		T _A =125℃		0.37	0.39	
Reverse current	V _R =50V	T _A =25℃	I _R ²⁾	50	200	μA
		T _A =100℃		5	10	mA
		T _A =125℃		15	30	
Typical junction capacitance	4V, 1MHz		C _j	110		pF

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

2.Pulse test: pulse width≤40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	SR150L	Unit
Typical thermal resistance ³⁾	R _{θJA}	50.0	℃/W
	R _{θJL}	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)
SR150L-DO-41	B/P	190*80*21	1000	433*203*230	50
SR150L-DO-41	T/B	264*74*135	5000	400*267*286	50

RATINGS AND CHARACTERISTIC OF SR150L

FIG.1-FORWARD CURRENT DERATING CURVE

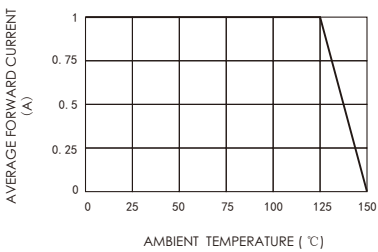


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

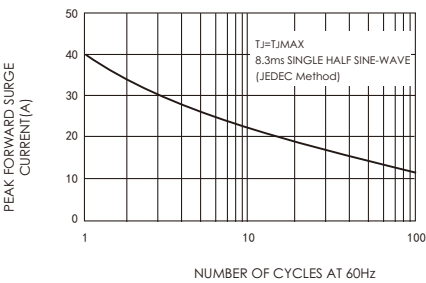


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

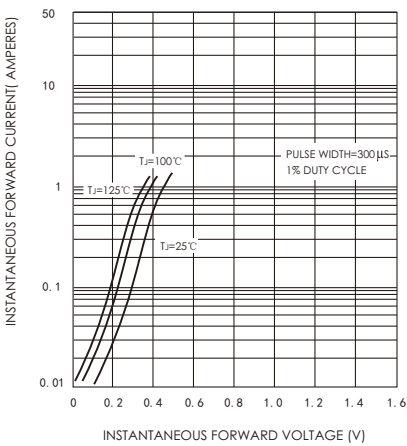


FIG.4-TYPICAL REVERSE CHARACTERISTICS

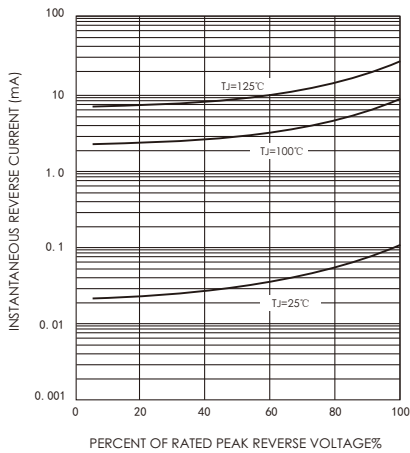


FIG.5-TYPICAL JUNCTION CAPACITANCE

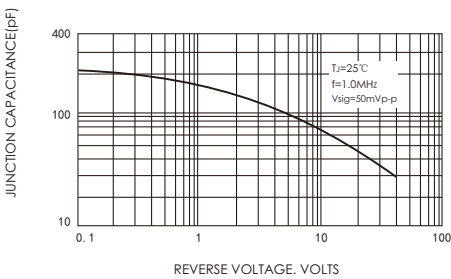


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

