

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°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/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

Typical Applications

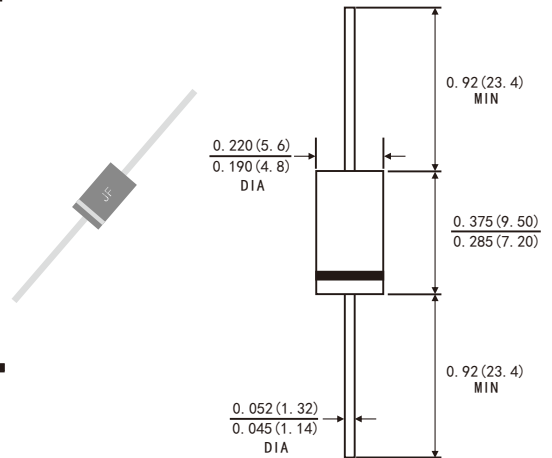
For use in low voltage ,high frequency inverters ,DC/DC converters, free wheeling ,and polarity protection applications

Maximum Ratings

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	150	V
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_{F(AV)}$	15.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	250	A
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{stg}	-55 to +150	°C

DO-201AD



Dimensions in inches and (millimeters)

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	15.0A
V_{RRM}	150V
I_{FSM}	250A
V_f at $I_F=15.0A, 25^\circ C$	0.78V
T_{JMAX}	150°C

Electrical Characteristics (T_A=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instaneous forward voltage	T _J =25°C	I _F =1.0A	V _F ¹⁾	0.50	-	V
		I _F =5.0A		0.67	-	
		I _F =10.0A		0.74	-	
		I _F =15.0A		0.78	0.85	
	T _J =125°C	I _F =1.0A		0.39	-	
		I _F =5.0A		0.54	-	
		I _F =10.0A		0.60	-	
		I _F =15.0A		0.65	0.74	
Reverse current	T _J =25°C	V _R =150V	I _R ²⁾	-	10	μA
	T _J =125°C			-	5	mA
	T _J =125°C			V _R =120V	-	
Typical junction capacitance	4V,1MHz		C _J	400		pF

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

2.Pulse test: pulse width≤40ms

Thermal Characteristics

Parameter	Symbol	SR15150L	Unit
Typical thermal resistance ³⁾	R _{θJA}	25.0	°C/W
	R _{θJL}	8.0	

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

Available Pack Information

Product code	Pack	Box Size L*W*H(mm)	Quantity(pcs/box)	Carton SizeL*W*H(mm)	Quantity(box/carton)
SR15150L-DO-201AD	B/P	190*80*21	200	433*203*230	50
SR15150L-DO-201AD	T/B	264*74*135	1000	400*267*286	10

Fig.1-Forward Current Derating Curve

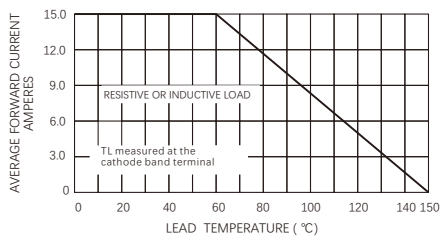


Fig.2-Maximum Non-repetitive Peak Forward Surge Current

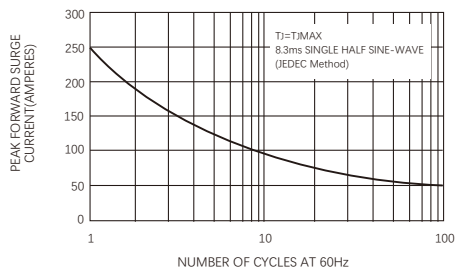


Fig.3-Typical Instantaneous Forward Characteristics

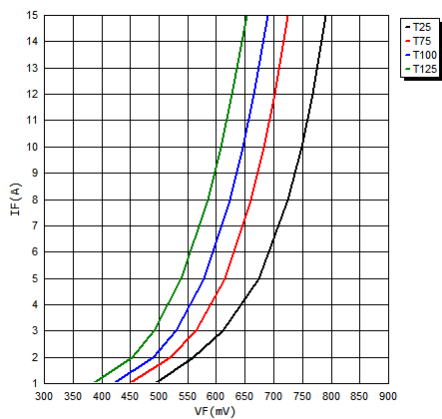


Fig.4-Typical Reverse Characteristics

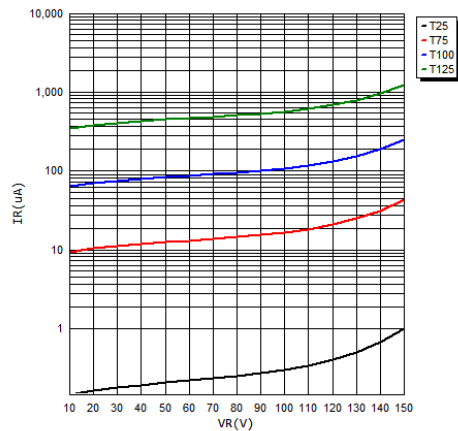
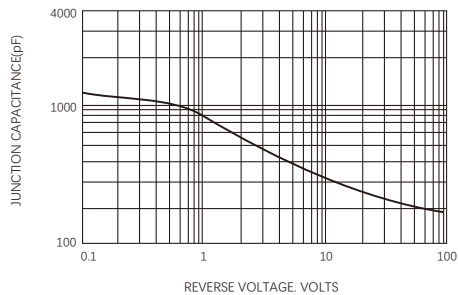


Fig.5-Typical Junction Capacitance



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