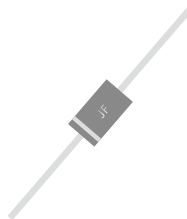


### FEATURES

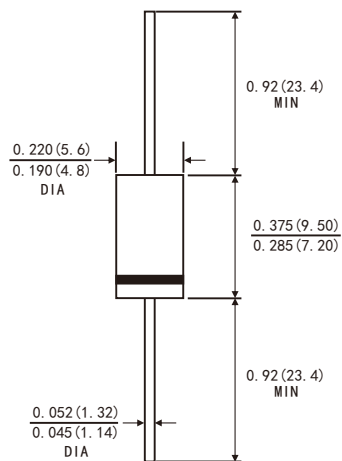
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- High temperature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



RoHS  
COMPLIANT



### DO-201AD



### 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

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	15.0A
$V_{RRM}$	80V
$I_{FSM}$	150A
$V_F$ at $I_F=15.0A, 25^\circ C$	0.61V
$T_{JMAX}$	150°C

### MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	80	V
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_{F(AV)}$	15.0	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

# RATINGS AND CHARACTERISTIC OF SR1580L

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instantaneous forward voltage	T <sub>A</sub> =25°C	I <sub>F</sub> =5.0A	V <sub>F</sub> <sup>1)</sup>	0.46	–	V
		I <sub>F</sub> =10.0A		0.53	–	
		I <sub>F</sub> =15.0A		0.61	0.65	
	T <sub>A</sub> =125°C	I <sub>F</sub> =5.0A		0.39	–	
		I <sub>F</sub> =10.0A		0.50	–	
		I <sub>F</sub> =15.0A		0.57	–	
Reverse current	V <sub>R</sub> =80V	T <sub>A</sub> =25°C	I <sub>R</sub> <sup>2)</sup>	18	100	μA
		T <sub>A</sub> =100°C		3.5	–	mA
		T <sub>A</sub> =125°C		15	–	
Typical junction capacitance	4V, 1MHz		C <sub>J</sub>	640		pF

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

2.Pulse test: pulse width ≤ 40ms

## THERMAL CHARACTERISTICS

Parameter	Symbol	DO-201AD	Unit
Typical thermal resistance <sup>3)</sup>	R <sub>θJA</sub>	25.0	°C/W
	R <sub>θJL</sub>	8.0	

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

## AVAILABLE PACK INFORMATION

Product code	Pack	Box Size L*W*H(mm)	Quantity (pcs/box)	Carton Size L*W*H(mm)	Quantity (box/carton)
SR1580L-DO-201AD	B/P	190*80*21	200	433*203*230	50
SR1580L-DO-201AD	T/B	264*74*135	1000	400*267*286	10

# RATINGS AND CHARACTERISTIC OF SR1580L

FIG.1-FORWARD CURRENT DERATING CURVE

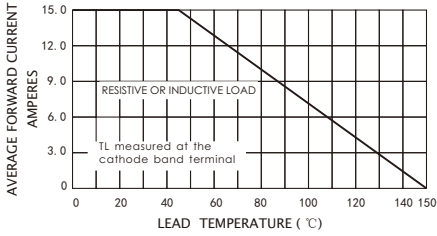


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

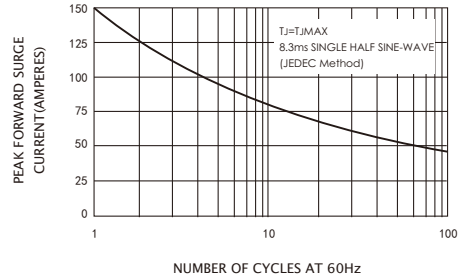


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

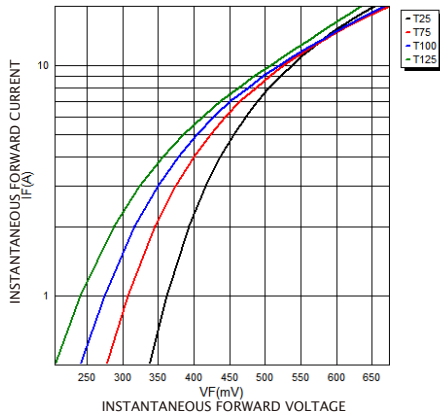


FIG.4-TYPICAL REVERSE CHARACTERISTICS

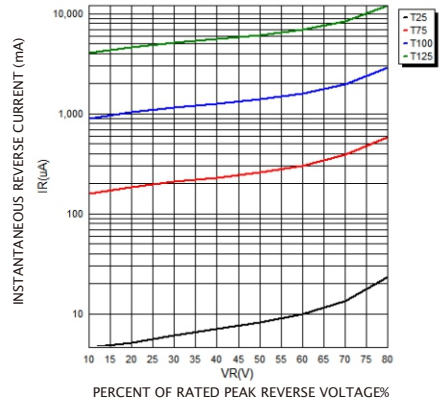


FIG.5-TYPICAL JUNCTION CAPACITANCE

