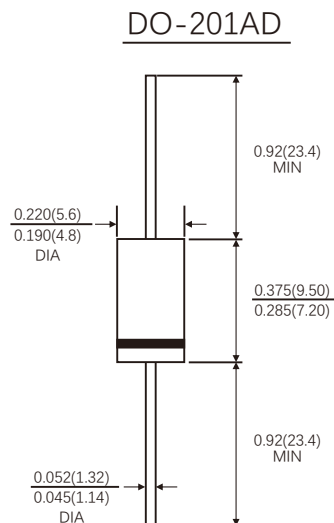


FEATURES

- 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



Dimensions in inches and (millimeters)

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)

PRIMARY CHARACTERISTICS	
$I_F(AV)$	5.0A
V_{RRM}	40V
I_{FSM}	120A
V_F at $I_F=5.0A$	0.36V
T_{JMAX}	150°C

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_F(AV)$	5.0	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 SR540SL

Electrical Characteristcs ($T_J=25^{\circ}\text{C}$ Unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instaneous forward voltage	$I_F=5.0\text{A}$	$T_J=25^{\circ}\text{C}$	V_F ¹⁾	0.43	0.47	V
		$T_J=100^{\circ}\text{C}$		0.38	-	
		$T_J=125^{\circ}\text{C}$		0.36	-	
	$I_F=3.0\text{A}$	$T_J=25^{\circ}\text{C}$		0.38	-	
		$T_J=100^{\circ}\text{C}$		0.32	-	
		$T_J=125^{\circ}\text{C}$		0.30	-	
Reverse current	$V_R=40\text{V}$	$T_J=25^{\circ}\text{C}$	I_R ²⁾	-	50	μA
		$T_J=100^{\circ}\text{C}$		-	8	mA
		$T_J=125^{\circ}\text{C}$		-	20	
Typical junction capacitance	4V,1MHz		C_j	825		pF

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

2.Pulse test: pulse width $\leq 40\text{ms}$

THERMAL CHARACTERISTCS

Parameter	Symbol	DO-201AD	Unit
Typical thermal resistance ³⁾	$R_{\theta JA}$	25.0	$^{\circ}\text{C/W}$
	$R_{\theta JL}$	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)
SR540SL-DO-201AD	B/P	190*80*21	200	433*203*230	50
SR540SL-DO-201AD	T/B	264*74*135	1000	400*267*286	10

RATINGS AND CHARACTERISTIC OF SR540SL

FIG.1-FORWARD CURRENT DERATING CURVE

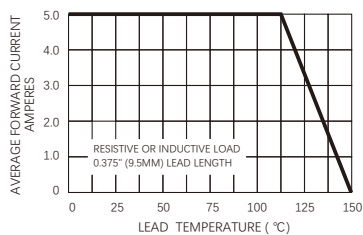


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

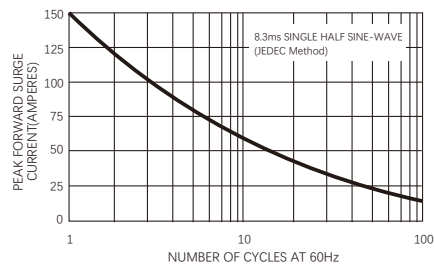


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

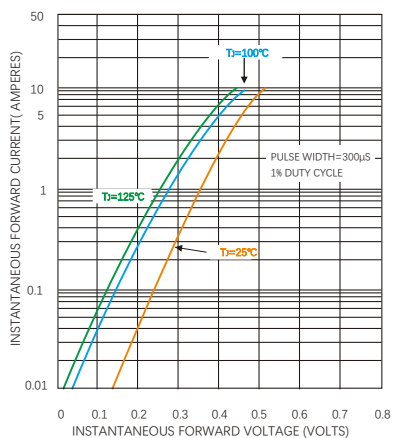


FIG.4-TYPICAL REVERSE CHARACTERISTICS

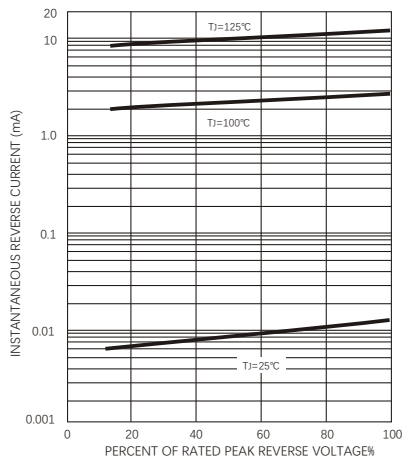
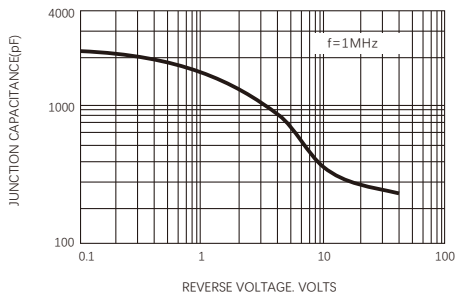


FIG.5-TYPICAL JUNCTION CAPACITANCE



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