SEMICONDUCTOR

SR540SL

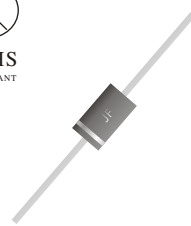
SUPER LOW VF SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 40 Volts
Forward Current - 5.0Amperes

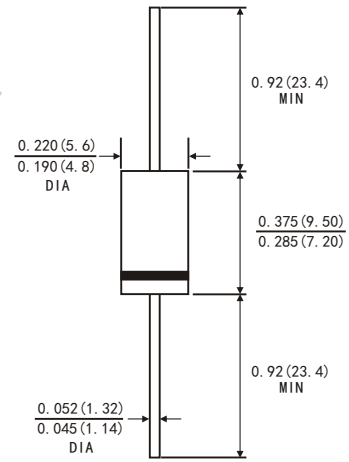
FEATURES

- 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 ,ultra low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260℃/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

Pb
RoHS
COMPLIANT



DO-201AD



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

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	5.0A
V_{RRM}	40V
I_{FSM}	120A
V_F at I_F=5.0A	0.32V
T_{JMAX}	150℃

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)

Parameter	Symbol	SR540SL	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}	120	A
Operating junction temperature range	T_J	-55 to+150	℃
Storage temperature range	T_{stg}	-55 to+150	℃

RATINGS AND CHARACTERISTIC OF SR540SL

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. 40	0. 43	V
		T_A=100℃		0. 33	0. 36	
		T_A=125℃		0. 32	0. 35	
	I_F=3.0A	T_A=25℃		0. 37	0. 40	
		T_A=100℃		0. 29	0. 32	
		T_A=125℃		0. 27	0. 30	
Reverse current	V_R=40V	T_A=25℃	I_R 2)	80	200	μA
		T_A=100℃		8	15	mA
		T_A=125℃		20	50	
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（T_A=25℃ Unless otherwise noted）

Parameter	Symbol	SR540SL	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)
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

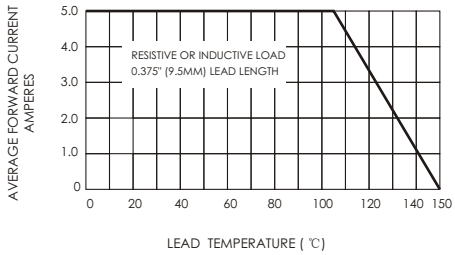


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

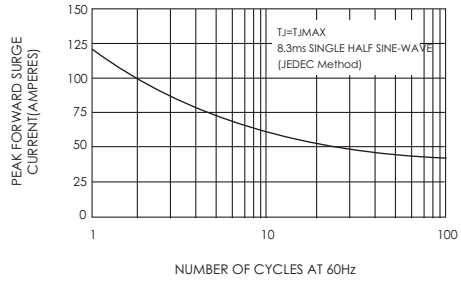


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

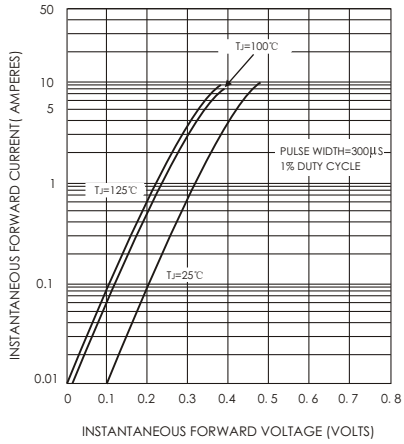


FIG.4-TYPICAL REVERSE CHARACTERISTICS

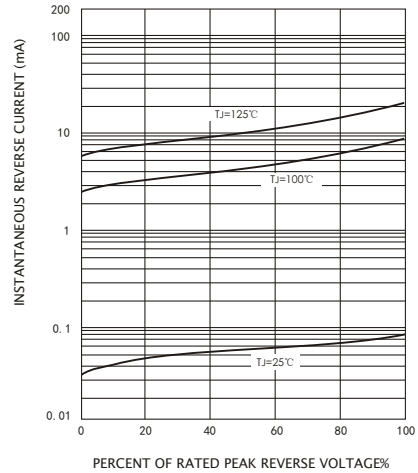


FIG.5-TYPICAL JUNCTION CAPACITANCE

