SEMICONDUCTOR

SS16LS

LOW VF SCHOTTKY BARRIER RECTIFIER

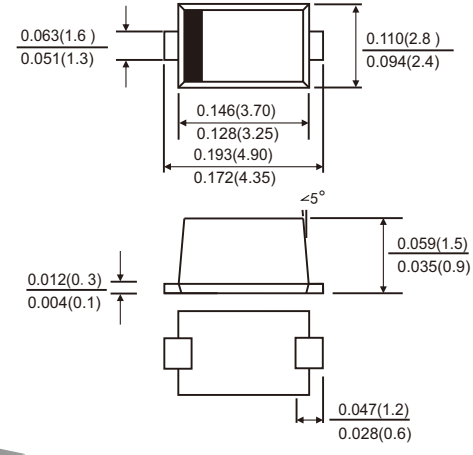
Reverse Voltage - 60 Volts
Forward Current - 1.0Amperes

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

RoHS COMPLIANT

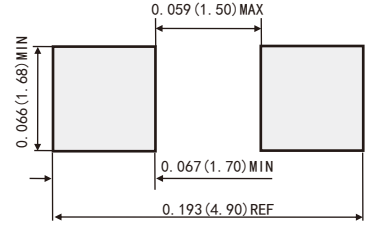
SMAF



MECHANICAL DATA

- Case: SMAF molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end

Suggested PAD Layout



Dimensions in inches and (millimeters)

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	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	60	V
Maximum average forward rectified current (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 SS16LS

ELECTRICAL CHARACTERISTCS (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. 53	0. 55	V
		T_A=100℃		0. 47	0. 49	
		T_A=125℃		0. 45	0. 47	
Reverse current	V_R=60V	T_A=25℃	I_R 2)	60	150	μA
		T_A=100℃		5	10	mA
		T_A=125℃		15	30	
Typical junction capacitance	4V,1MHz		CJ	110		pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle
2.Pulse test: pulse width≤40ms

THERMAL CHARACTERISTCS

Parameter	Symbol	SS16LS	Unit
Typical thermal resistance 3)	$R_{\theta}JA$	150	℃/W
	$R_{\theta}JL$	28	

3.P.C.B. mounted with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

AVAILABALE PACK INFORMATION

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Box Size L×W×H (mm)	Quantity (reel/box)	Carton Size L×W×H (mm)	Quantity (box/carton)
SS16LS-SMAF	T/R	Φ178	3000	180×73×180	2	380×380×200	10

RATINGS AND CHARACTERISTIC OF SS16LS

FIG.1-FORWARD CURRENT DERATING CURVE

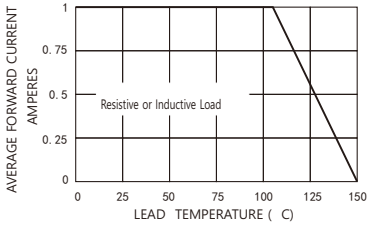


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

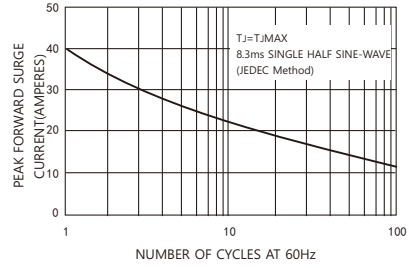


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

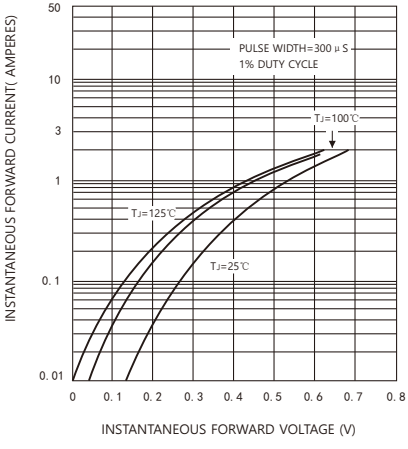


FIG.4-TYPICAL REVERSE CHARACTERISTICS

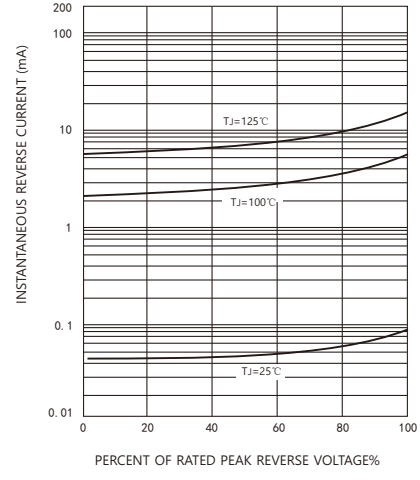


FIG.5-TYPICAL JUNCTION CAPACITANCE