LS12 THRU LS120

SEMICONDUCTOR

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

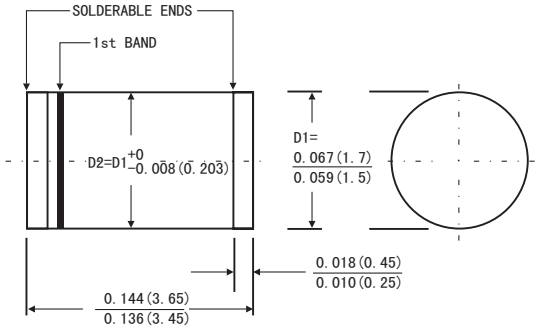
Reverse Voltage - 20 to 200 Volts
Forward Current - 1.0Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260℃/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU



MiniMELF(DO-213AA)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC Mini MELF(DO-213AA) molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25℃ ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

		Symbols	LS 12	LS 13	LS 14	LS 16	LS 110	LS 115	LS 120	Volts
Maximum repetitive peak reverse voltage		V_{RRM}	20	30	40	60	100	150	200	Volts
Maximum RMS voltage		V_{RMS}	14	21	28	42	71	105	140	Volts
Maximum DC blocking voltage		V_{DC}	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current (See Fig. 1)		$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	40.0							Amps
Maximum instantaneous forward voltage at1.0 A(note 1)		V_F	0.55			0.75	0.85	0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T_A=25℃	I_R	100				20			μA
	T_A=100℃		5.0				–			mA
	T_A=125℃		–				3.0			
Typical thermal resistance (Note 2)		$R_{\theta JA}$ $R_{\theta JL}$	75.0 30.0							℃/W
Operating junction temperature range		T_J	-65 to+150							℃
Storage temperature range		T_{STG}	-65 to+150							℃

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

2. P.C.B. mounted with 0.2 X 0.2"(5.0 X 5.0mm)copper pad areas

RATINGS AND CHARACTERISTIC CURVES LS12 THRU LS120

FIG.1-FORWARD CURRENT DERATING CURVE

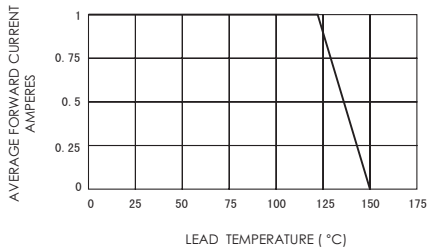


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

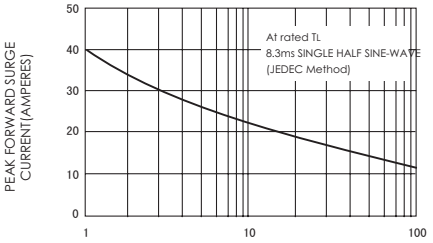


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

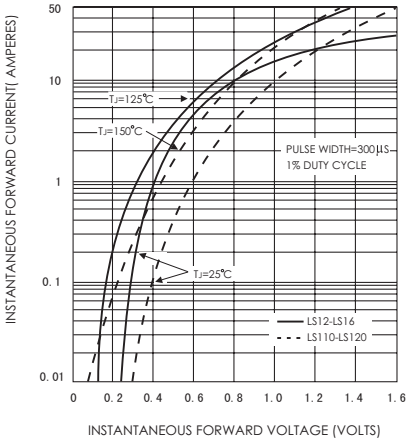


FIG.4-TYPICAL REVERSE CHARACTERISTICS

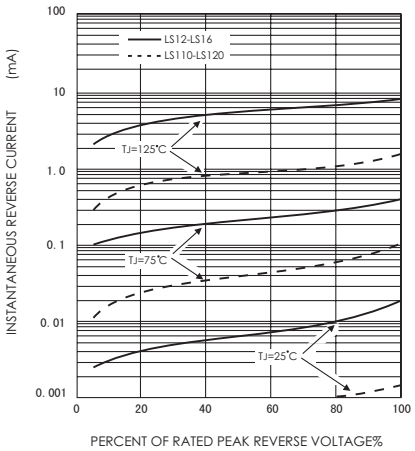


FIG.5-TYPICAL JUNCTION CAPACITANCE

