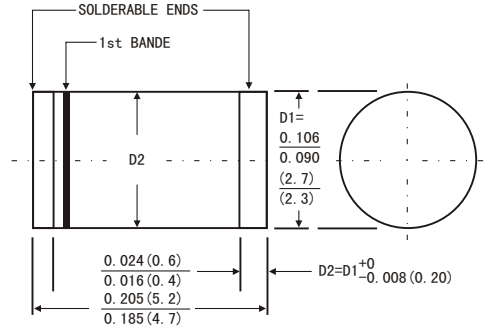


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Guardring 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 C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



MELF(DO-213AB)



MECHANICAL DATA

- Case: JEDEC MELF(DO-213AB) molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0041ounce, 0.116 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		Symbols	SM 120	SM 130	SM 140	SM 150	SM 160	SM 180	SM 1100	Units
Maximum repetitive peak reverse voltage		VRRM	20	30	40	50	60	80	100	Volts
Maximum RMS voltage		VRMS	14	21	28	35	42	57	71	Volts
Maximum DC blocking voltage		VDC	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see Fig. 1)		I(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		IFSM	30.0							Amps
Maximum instantaneous forward voltage at 1.0 A(Note 1)		VF	0.55			0.70		0.85		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA =25℃	IR	0.2							mA
	TA =100℃		10							
Typical junction capacitance(Note 2)		CJ	110							pF
Typical thermal resistance (Note 3) (Note 4)		RθJA RθJL	80.0 30.0							℃/W
Operating junction temperature range		TJ	-65 to+150							℃
Storage temperature range		TSTG	-65 to+150							℃

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

2.Measured at 1MHz and applied reverse voltage of 4.0 Volts

3.Thermal resistance (from junction to ambient),0.24X0.24" copper pads to each terminals

4.Thermal resistance (from junction to terminal),0.24X0.24" copper pads to each terminals

RATINGS AND CHARACTERISTIC CURVES SM120 THRU SM1100

FIG.1-FORWARD CURRENT DERATING CURVE

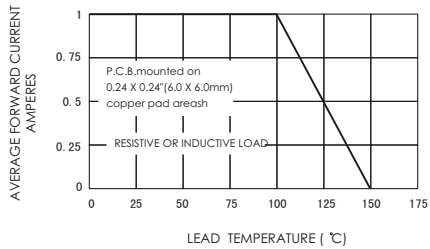


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

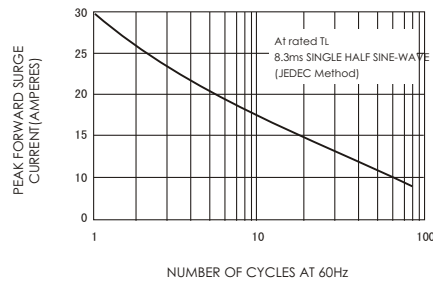


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

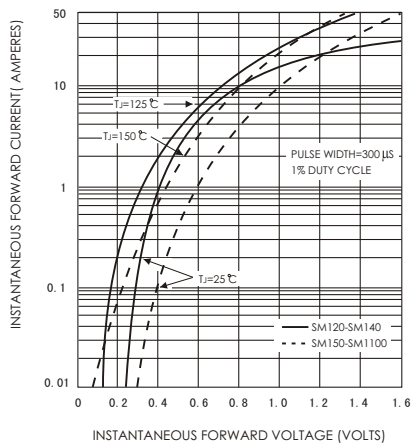


FIG.4-TYPICAL REVERSE CHARACTERISTICS

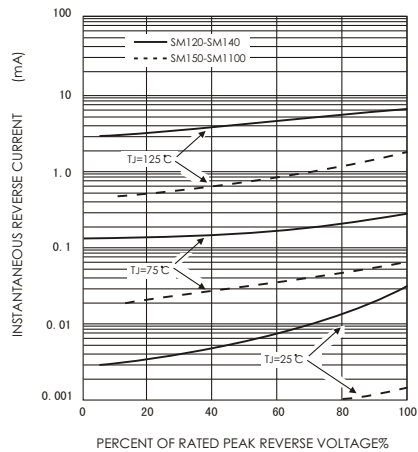


FIG.5-TYPICAL JUNCTION CAPACITANCE

