DEC

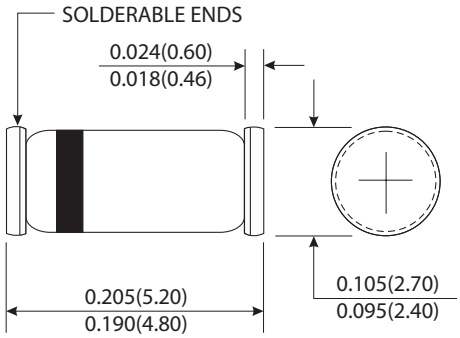
SM120 THRU SM160

CURRENT 1.0 Ampere
VOLTAGE 20 to 60 Volts

Features

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Glass passivated junction
- High temperature soldering guaranteed: 250℃/10 seconds, at terminals

MELF (DO-41)



Dimensions in inches and (millimeters)

Mechanical Data

- Case : JEDEC MELF(DO-41) molded plastic body
- Terminals : Lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.0041 ounce, 0.116 gram

Maximum Ratings And Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

	Symbols	SM120	SM130	SM140	SM150	SM160	Units
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	Volts
Maximum average forward rectified current See Fig. 1	$I_{(AV)}$	1.0					Amp
Peak forward surge current 8.3ms half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	25.0					Amps
Maximum instantaneous forward voltage at 1.0A	V_F	0.55			0.70		Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25℃	I_R	1.0					μA
Maximum DC reverse current at rated DC blocking voltage T_A=100℃	I_R	10.0					μA
Typical thermal resistance	$R\Theta_{JA}$	15.0					℃/W
Typical junction capacitance (Note 1)	C_J	110			70		pF
Operating and storage temperature range	T_J	-50 to +125					℃
Operating and storage temperature range	T_{STG}	-65 to +150					℃

Notes:
(1) Measured at 1MHz and applied reverse voltage of 4.0V DC.

DEC

RATINGS AND CHARACTERISTIC CURVES SM120-SM160

FIG . 1 -MAXIMUM FORWARD CURRENT DERATING CURVE

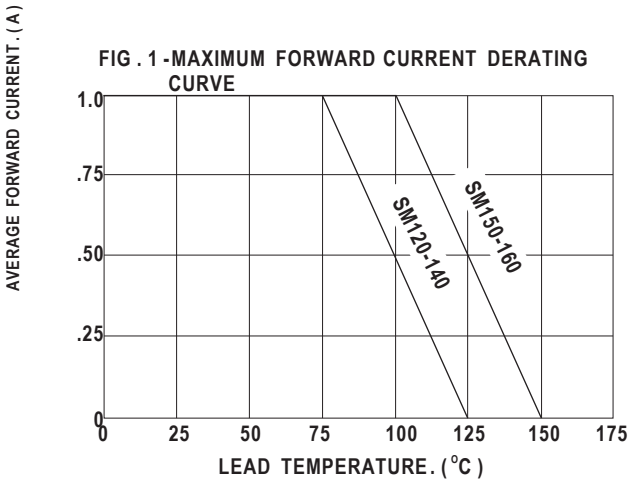


FIG . 2 -TYPICAL FORWARD CHARACTERISTICS

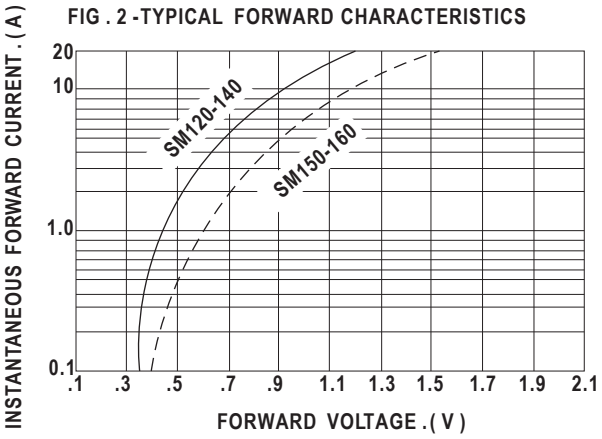


FIG.3-TYPICAL FORWARDCHARACTERISTICS

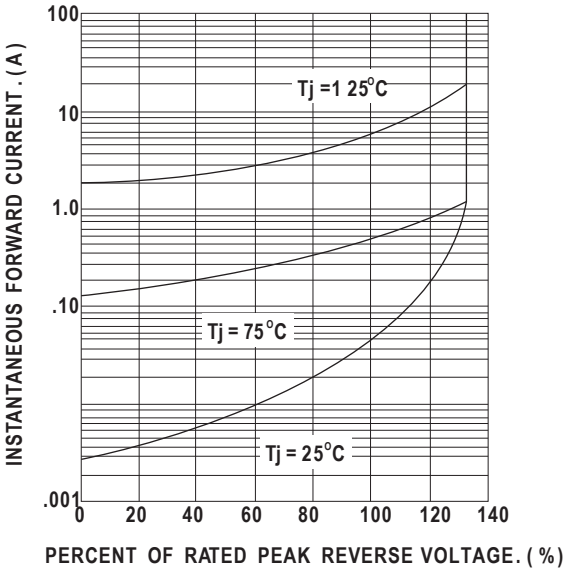


FIG . 4 -TYPICAL JUNCTION CAPACITANCE

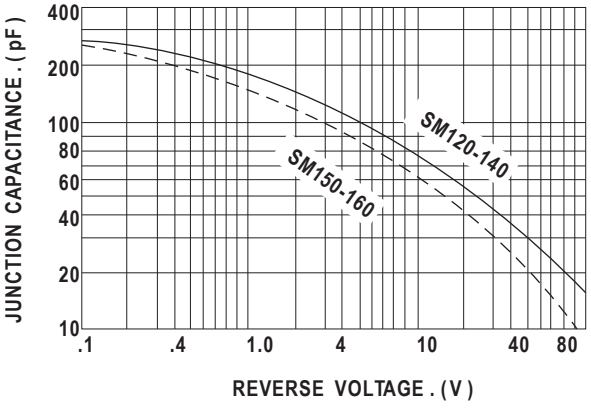


FIG .5 - MAXIMUM NON- REPETITIVE FORWARD SUGE CURRENT

