

SM120 THRU SM160

CURRENT 1.0 Ampere
VOLTAGE 20 to 60 Volts

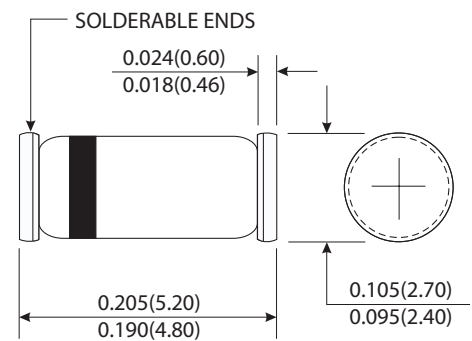
Features

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

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

MELF (DO-41)



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

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

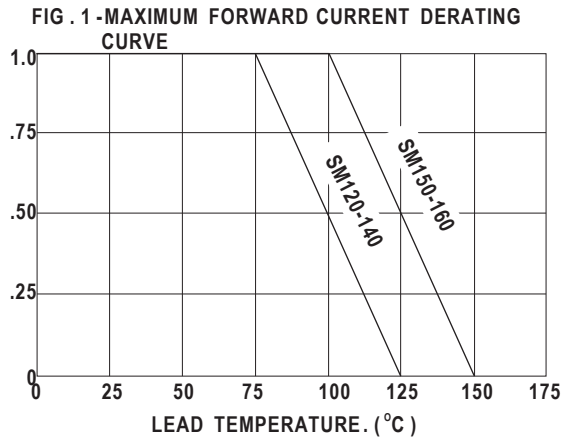
	Symbols	SM120	SM130	SM140	SM150	SM160	Units
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	40	50	60	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	Volts
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	Volts
Maximum average forward rectified current See Fig. 1	I _(AV)	1.0					Amp
Peak forward 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 °C	1.0					μA
	T _A =100 °C	10.0					
Typical thermal resistance	R _{θJA}	15.0					°C/W
Typical junction capacitance (Note 1)	C _J	110			70		pF
Operating and storage temperature range	T _J	-50 to +125					°C
	T _{STG}	-65 to +150					

Notes:

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

RATINGS AND CHARACTERISTIC CURVES SM120-SM160

AVERAGE FORWARD CURRENT . (A)



INSTANTANEOUS FORWARD CURRENT . (A)

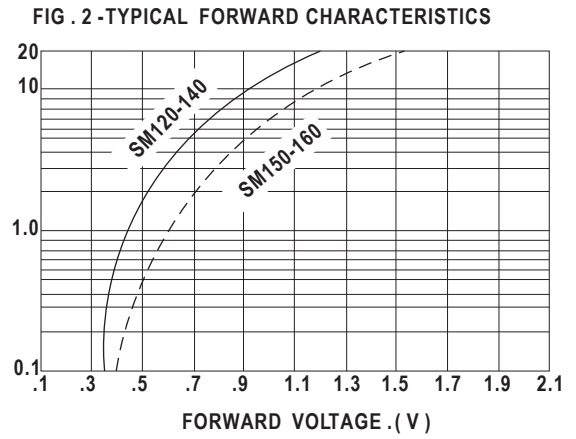


FIG.3-TYPICAL FORWARD CHARACTERISTICS

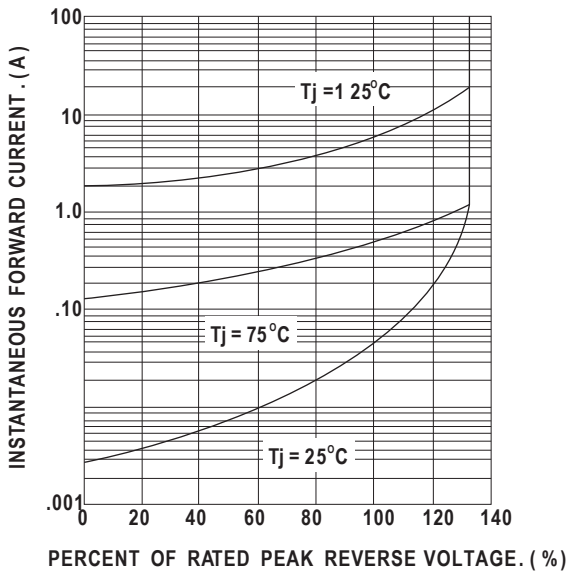
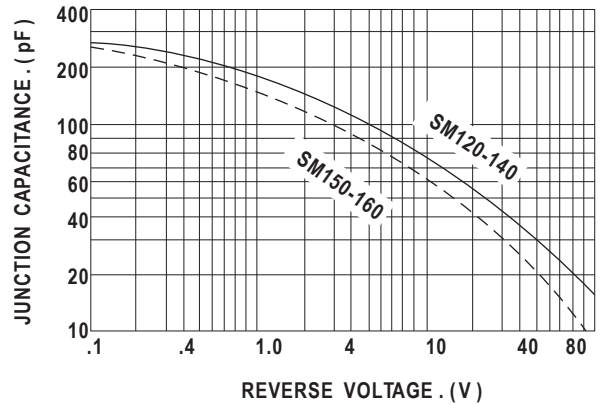


FIG. 4 - TYPICAL JUNCTION CAPACITANCE



PEAK FORWARD SURGE CURRENT . (A)

FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

