

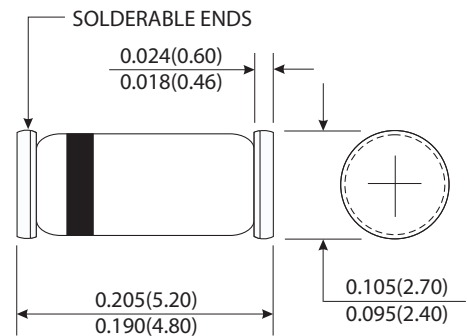
SM5817 THRU SM5819

CURRENT 1.0 Ampere
VOLTAGE 20 to 40 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

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

	Symbols	SM5817	SM5818	SM5819	Units
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	40	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	Volts
Maximum DC blocking voltage	V _{DC}	20	30	40	Volts
Maximum average forward rectified current at T _L =90°C	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	0.450	0.550	0.600	Volts
Maximum instantaneous forward voltage at 3.0A	V _F	0.750	0.875	0.900	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 (Note 2)	R _{θJA}	80.0			°C/W
Typical junction capacitance (Note 1)	C _J	110	70		pF
Operating and storage temperature range	T _J	-55 to +125			°C
	T _{STG}	-55 to +150			

Notes:

- (1) Measured at 1MHz and applied reverse voltage of 4.0V DC.
- (2) Thermal resistance from junction to ambient

RATINGS AND CHARACTERISTIC CURVES SM5817-SM5819

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

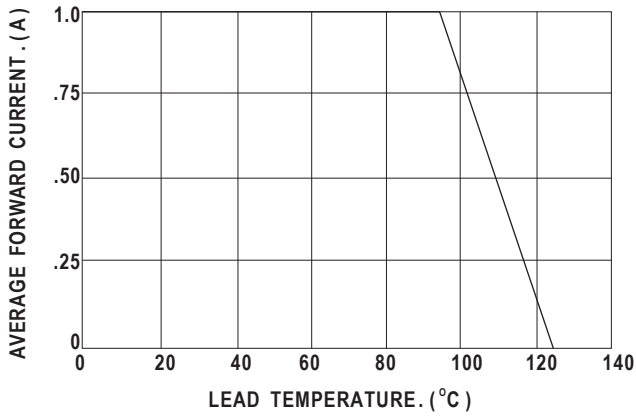


FIG. 2 - TYPICAL JUNCTION CAPACITANCE

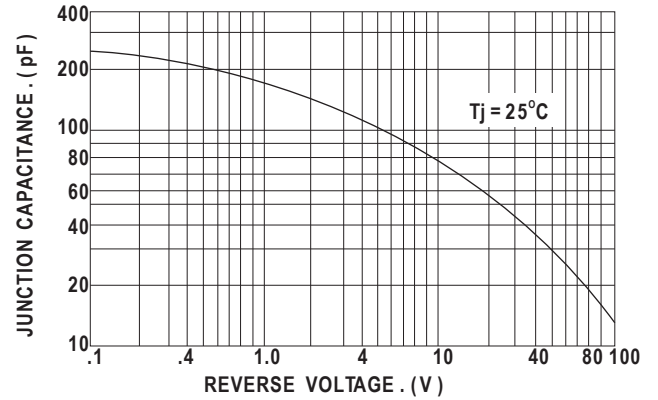


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

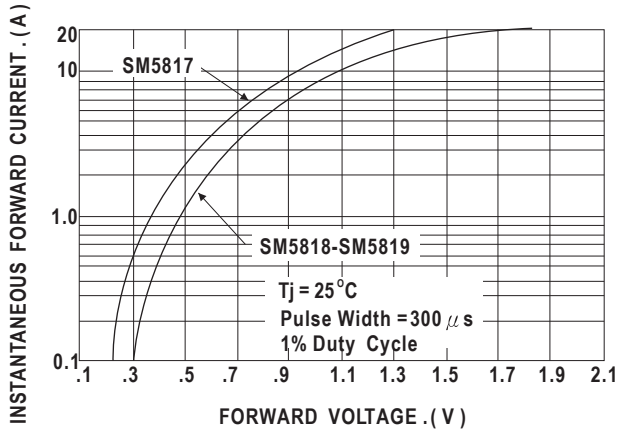


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

