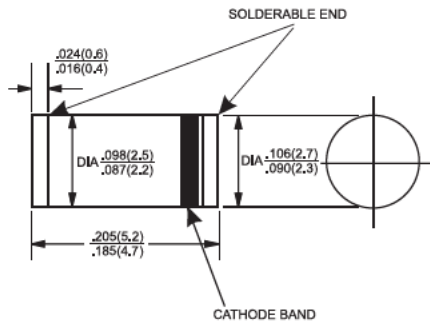


## II. Schottky Rectifier

### 1.0A Surface Mount Schottky Rectifier SM5817~SM5819

(Package: MELF (DO-213AB))

<p><u>FEATURES</u></p> <ul style="list-style-type: none"> <li>• Low power loss, high efficiency</li> <li>• For surface mounted applications</li> <li>• High surge current capability</li> <li>• Low forward voltage drop</li> <li>• For use in low voltage, high frequency inverters, free wheeling applications</li> <li>• Metal silicon junction, majority carrier conduction</li> </ul> <p><u>MECHANICAL DATA</u></p> <ul style="list-style-type: none"> <li>• Case : MELF(DO-213AB) molded plastic body</li> <li>• Terminals : Solder plated</li> <li>• Polarity : Color band denotes cathode end</li> <li>• Mounting Position : Any</li> <li>• Weight : 0.12 grams</li> </ul>	 <p>Case: MELF Dimensions in inches and (millimeters)</p>
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### Ratings & Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristics	Symbol	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 $T_L=90^\circ\text{C}$	$I_o$	1.0			Amp
Peak forward surge current 8.3ms single 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	$T_a=25^\circ\text{C}$	$I_R$	1.0		mA
	$T_a=100^\circ\text{C}$		10.0		
Typical thermal resistance (Note 2)	$R_{th-JA}$	80.0			$^\circ\text{C}/\text{W}$
Typical junction capacitance (Note 1)	$C_j$	110			PF
Operating and storage temperature range	$T_j$	-65 to +125			$^\circ\text{C}$
	$T_{stg}$	-65 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 of SM5817~SM5819

