

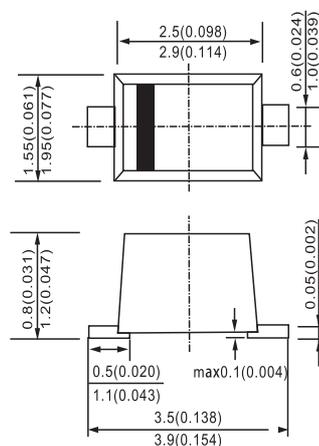
**FEATURES**

- For surface mounted applications
- Low-profile package
- Ideal for automated placement
- Low power loss, high efficiency
- High temperature soldering:
260 °C/10 seconds at terminals
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

Mechanical Data**Case:** JEDEC DO-219AB (SMF) Plastic case**Polarity:** Color band denotes cathode end**Weight:** approx. 15 mg**Packaging codes-options:**

G18 / 10 k per 13" reel (8 mm tape), 50 k/box

G08 / 3 k per 7" reel (8 mm tape), 30 k/box

SOD-123FL

Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**Absolute Maximum Ratings** $T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Part	Symbol	Value	Unit
Maximum repetitive peak reverse voltage		SL02-M	V_{RRM}	20	V
		SL03-M	V_{RRM}	30	V
		SL04-M	V_{RRM}	40	V
Maximum RMS voltage		SL02-M	V_{RMS}	14	V
		SL03-M	V_{RMS}	21	V
		SL04-M	V_{RMS}	28	V

Parameter	Test condition	Part	Symbol	Value	Unit
Maximum DC blocking voltage		SL02-M	V_{DC}	20	V
		SL03-M	V_{DC}	30	V
		SL04-M	V_{DC}	40	V
Maximum average forward rectified current	$T_{ip} = 109\text{ }^{\circ}\text{C}$		$I_{F(AV)}$	1.1	A
Peak forward surge current 8.3 ms single half sine-wave			I_{FSM}	40	A

Thermal Characteristics $T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air ²⁾		R_{thJA}	180	K/W
Maximum operating junction temperature		T_J	125	$^{\circ}\text{C}$
Storage temperature range		T_{STG}	- 55 to 150	$^{\circ}\text{C}$

1) Mounted on epoxy substrate with 3 x 3 mm Cu pads ($\geq 40\text{ }\mu\text{m}$ thick)

RATINGS AND CHARACTERISTIC CURVES SL02-M THRU SL04-M

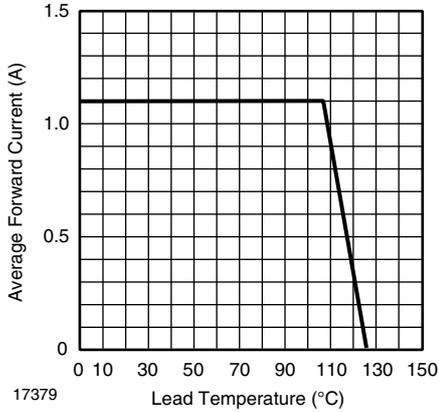


Figure 1. Forward Current Derating Curve

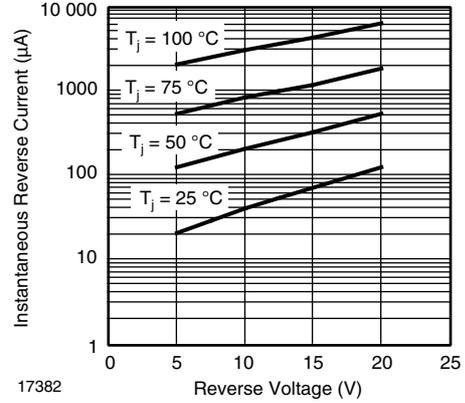


Figure 4. Typical Reverse Current Characteristics - SL02-M

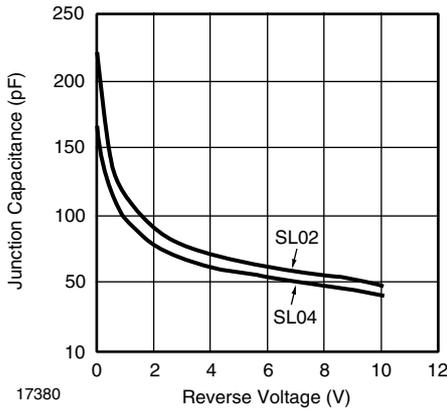


Figure 2. Typical Junction Capacitance

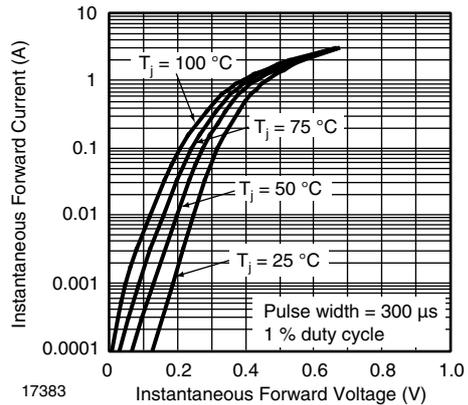


Figure 5. Typical Instantaneous Forward Characteristics - SL03-M

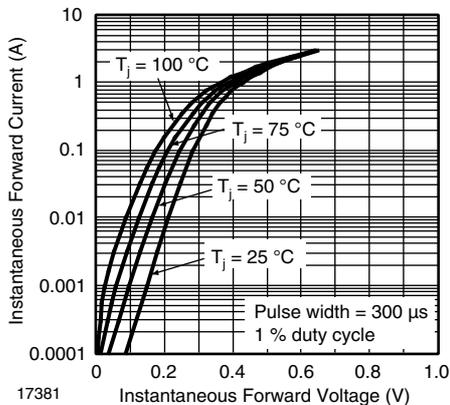


Figure 3. Typical Instantaneous Forward Characteristics - SL02-M

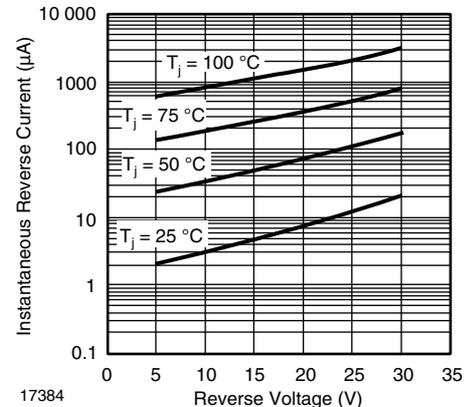


Figure 6. Typical Reverse Current Characteristics - SL03-M