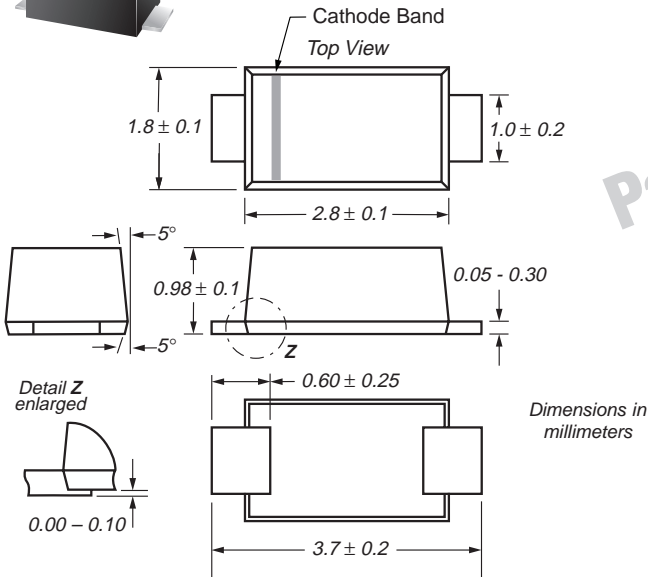


Small Surface Mount Rectifier

Forward Current 0.7A
Reverse Voltage 100 to 1000V

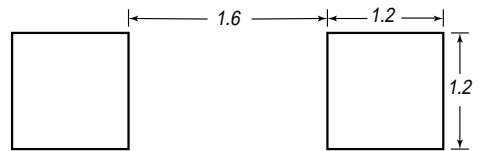


DO-219AB (SMF)



Patented

Mounting Pad Layout



Mechanical Data

Case: SMF Plastic Case

Polarity: Band denotes cathode end

Weight: approx. 0.01g

Terminals: High temperature soldering:
250°C/10 seconds at terminals

Features

- For surface mounted applications
- Low profile package
- Ideal for automated placement

Packaging codes-options:

G1-10K per 13" reel (8mm tape), 50K/box
G2-3K per 7" reel (8mm tape), 30K/box

Maximum Ratings and Thermal Characteristics (T_C = 25°C unless otherwise noted)

Parameter	Symbol	S07B	S07D	S07G	S07J	S07M	Unit
Device marking code		SB	SD	SG	SJ	SM	
Maximum repetitive peak reverse voltage	V _{RRM}	100	200	400	600	1000	V
Maximum RMS voltage	V _{RMS}	70	140	280	420	700	V
Maximum DC blocking voltage	V _{DC}	100	200	400	600	1000	V
Maximum average forward rectified current at T _{ip} =105°C ⁽¹⁾ at T _A =65°C ⁽²⁾	I _{F(AV)}	1.5 0.7					A
Peak forward surge current 8.3ms single half sine-wave T _L = 25°C	I _{FSM}	25					A
Typical thermal resistance (on ceramic substrate) (on epoxy substrate)	R _{θJA}	55 188 ⁽²⁾					°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150					°C

Electrical Characteristics (T_C = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum instantaneous forward voltage at 1.0A ⁽³⁾	V _F	1.1	V
Maximum DC reverse current at Rated DC blocking voltage T _A = 25°C T _A = 125°C	I _R	10 50	μA
Typical reverse recovery time at I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	1.8	μs
Typical capacitance at 4V, 1 MHz	C _J	4	pF

Notes:

(1) Averaged over any 20ms period

(2) Mounted on epoxy substrate with 3 x 3mm Cu pads (≥ 40μm thick)

(3) Pulse test: 300μs pulse width, 1% duty cycle

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

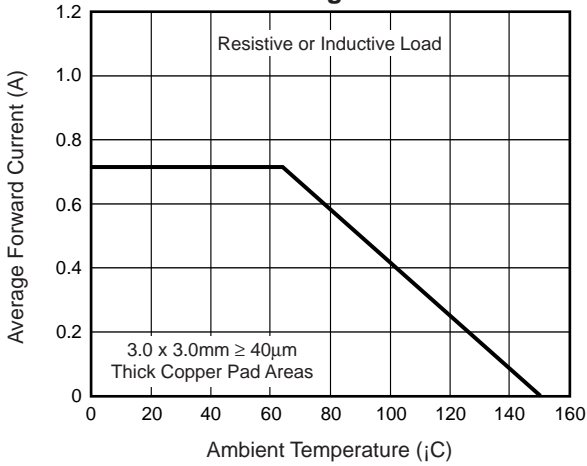


Fig. 2 – Typical Instantaneous Forward Characteristics

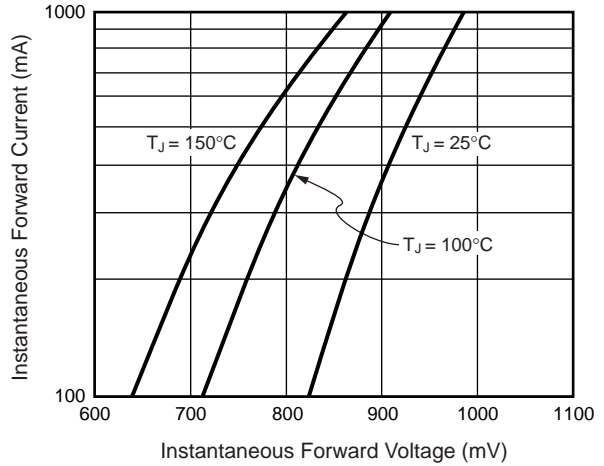


Fig. 3 – Typical Instantaneous Reverse Characteristics

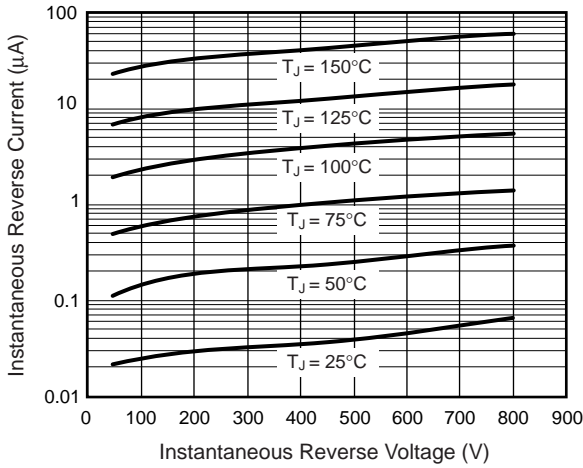


Fig. 4 – Capacitance vs. Reverse Voltage

