



Ultra Fast Recovery Rectifier

VOLTAGE- 50 to 1000 Volts CURRENT - 1.0 Amperes



Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- For surface mount applications
- Glass passivated chip junctions
- Low profile package
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Low forward voltage, low power loss
- Built-in strain relief, ideal for automated placement
- High temperature soldering guaranteed: 250°C/10 seconds on terminals

Mechanical Data

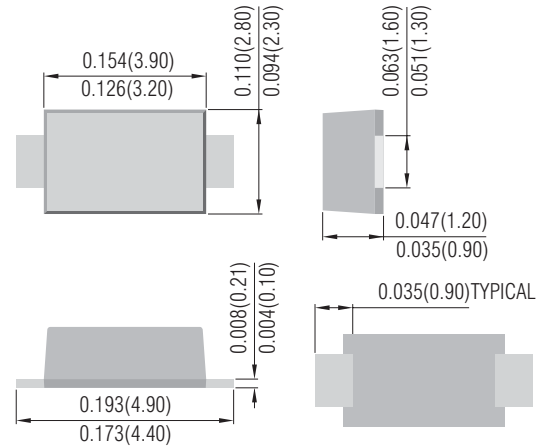
**Case:** JEDEC SMF molded plastic body over passivated chip

**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

SMF

Unit:inch(mm)



Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	U1A	U1B	U1D	U1G	U1J	U1K	U1M	Units
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at TL = 110°C	IF(AV)	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							A
Maximum thermal resistance <sup>(1)</sup>	RθJA RθJL	75 27							°C/W
Operating and storage temperature range	TJ, TSTG	-55 to +150							°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage at 1.0A	VF	1.0		1.7		V
Maximum DC reverse current at rated DC blocking voltage	IR	10 50				µA
Maximum reverse recovery time at IF = 0.5A, IR = 1.0A, Irr = 0.25A	trr	50		75		ns
Typical junction capacitance at 4.0V, 1MHz	CJ	15		10		pF

Notes: (1) P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad area

# DEVICE CHARACTERISTICS

## U1A THRU U1M

