# **SEMICONDUCTOR**

## Data Sheet 2758, Rev. -

#### **Features**

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose and Switching
- Plastic Material UL Recognition Flammability Classification 94V-O

### **Mechanical Data**

Case: SOT-23, Molded Plastic

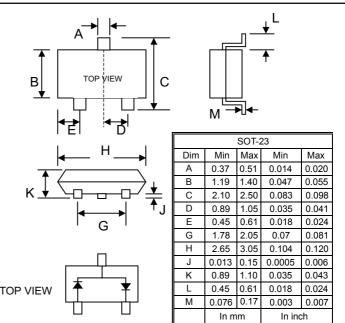
 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: See Diagram

• Weight: 0.008 grams (approx.)

Mounting Position: Any

Marking: JG



SURFACE MOUNT FAST SWITCHING DIODE

## Maximum Ratings @TA=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	VRM	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	Vrrm Vrwm Vr	75	V
Forward Continuous Current (Note 1)	lF	300	mA
Average Rectified Output Current (Note 1)	lo	150	mA
Peak Forward Surge Current (Note 1) @ t < 1.0µs	IFSM	2.0	Α
Power Dissipation (Note 1)	Pd	350	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{ heta}$ JA	357	K/W
Operating and Storage Temperature Range	Тj, Tsтg	-65 to +150	°C

### Electrical Characteristics @TA=25°C unless otherwise specified

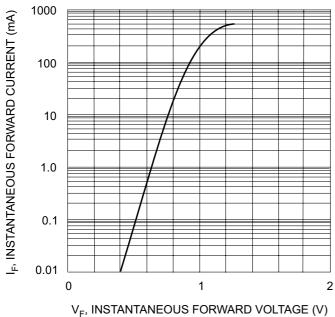
Characteristic	Symbol	Min	Max	Unit	Test Condition
Forward Voltage	VF		0.855 1.0	V	@ IF = 10mA @ IF = 50mA
Reverse Leakage Current	lr	_	2.5	μA	@ VR = 75V
Junction Capacitance	Cj	_	2.0	pF	VR = 0V, f = 1.0MHz
Reverse Recovery Time	trr	_	6.0	nS	IF = IR = $10$ mA, IRR = $0.1$ x IR, RL = $100$ $\Omega$

Note: 1. Device mounted on fiberglass substrate 40 x 40 x 1.5mm.

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<sup>•</sup> World Wide Web Site - http://www.sensitron.com • E-Mail Address - sales@sensitron.com •

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1 PARAGE CURRENT (nA) 0.1 0 20 40 60 80

ANTANEOUS FORWARD VOLTAGE (V)

Fig. 1 Forward Characteristics

V<sub>R</sub>, REVERSE VOLTAGE (V)

Fig. 2 Typical Leakage Current vs Reverse Voltage

10

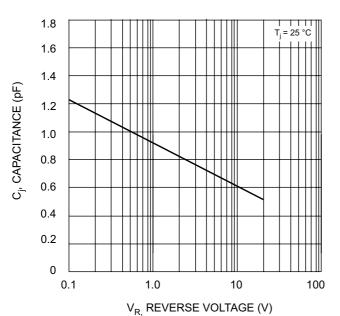


Fig. 3 Typical Junction Capacitance vs Reverse Voltage

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