

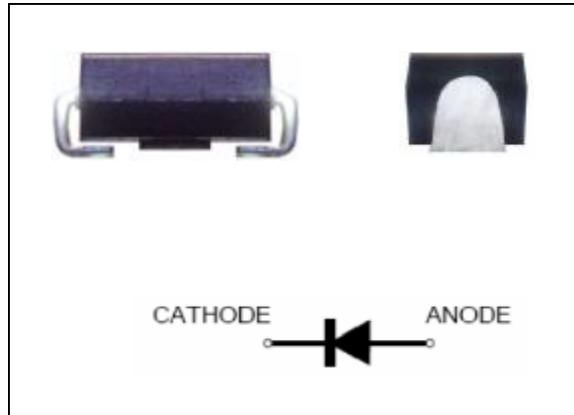
# SN1A thru SN1M

## Surface Mount General

### Reverse Voltage 50 to 1000V

### FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* High temperature metallurgically bonded construction
- \* Capable of meeting environmental standards of MIL-S-19500
- \* Diffused junction
- \* 1.0 A operation at  $T_A=75^{\circ}\text{C}$  with no thermal runaway
- \* Typical IR less than  $1.0\mu\text{A}$
- \* High temperature soldering guaranteed:  $260^{\circ}\text{C}/10$  seconds



### Mechanical Data

**Case:** JEDEC DO-214AC, molded plastic body

**Terminals:** Solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.003 oz., 0.080 g

**Handling precaution:** None

### 1. Maximum & Thermal Characteristics Ratings at $25^{\circ}\text{C}$ ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SN1A	SN1B	SN1D	SN1G	SN1J	SN1K	SN1M	Unit
Marking		N1A	N1B	N1D	N1G	N1J	N1K	N1M	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 75^{\circ}\text{C}$	$I_F(AV)$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	25							A
Maximum thermal resistance	$R_{\theta JA}$	65							$^{\circ}\text{C}/\text{W}$
Operating junction and storage temperature range	$T_J,$ $T_{STG}$	-50 to +150							$^{\circ}\text{C}$

### Electrical Characteristics Ratings at $25^{\circ}\text{C}$ ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SN1A	SN1B	SN1D	SN1G	SN1J	SN1K	SN1M	Unit
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.1							V
Maximum DC reverse current $T_A = 25^{\circ}\text{C}$ at rated DC blocking voltage $T_A = 100^{\circ}\text{C}$	IR	5.0 50							$\mu\text{A}$
Typical junction capacitance at 4.0V, 1MHz	CJ	15.0							PF

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## 2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

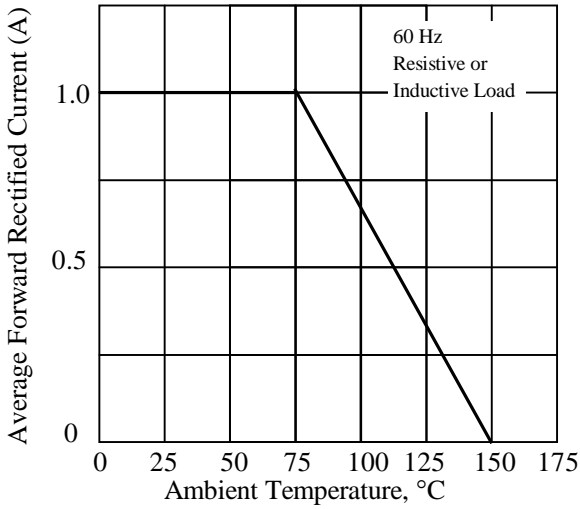


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

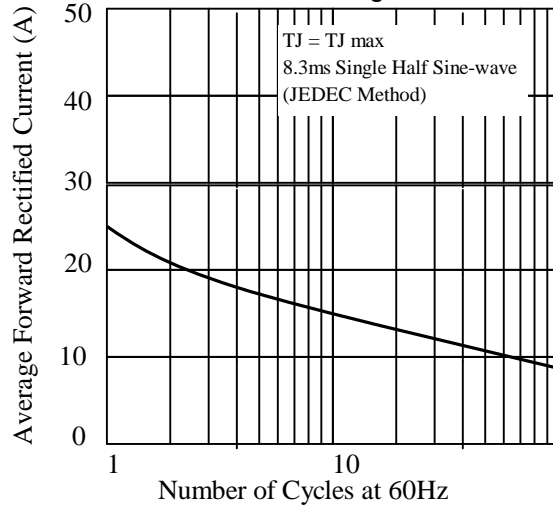


Fig 3. – Typical Instantaneous Forward Characteristics

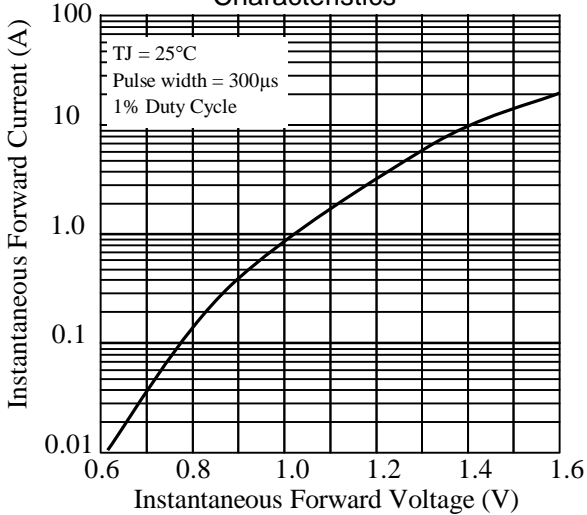


Fig 4. – Typical Reverse Characteristics

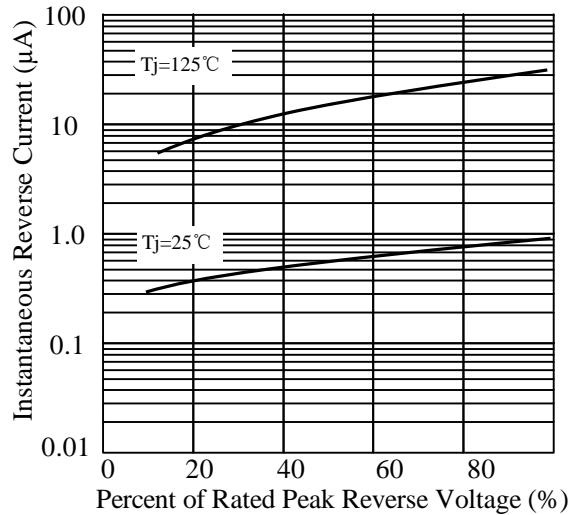


Fig 5. – Typical Junction Capacitance

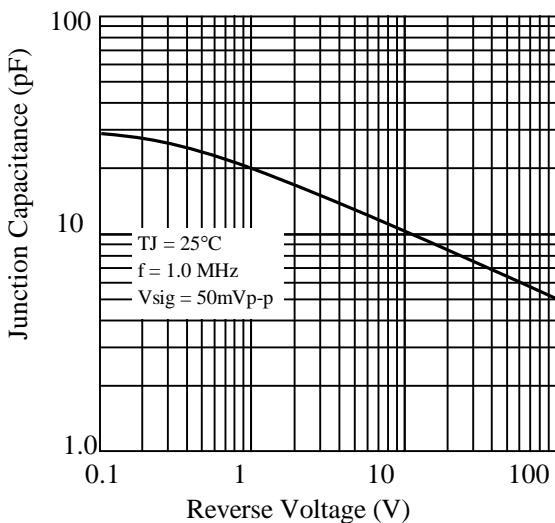
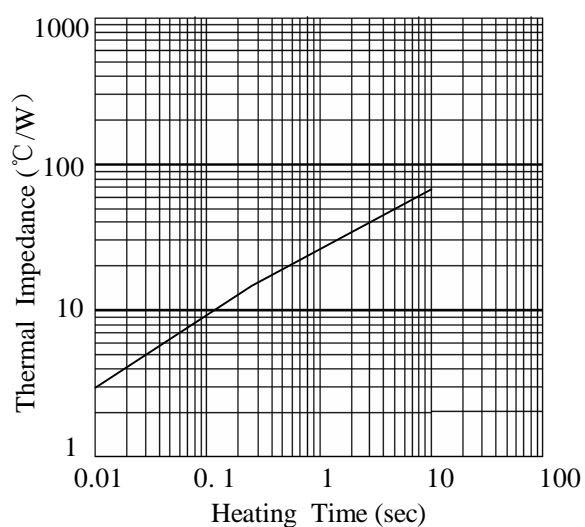


Fig 6. – Transient Thermal Impedance



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### 3. dimension:

