

## SN1A thru SN1M

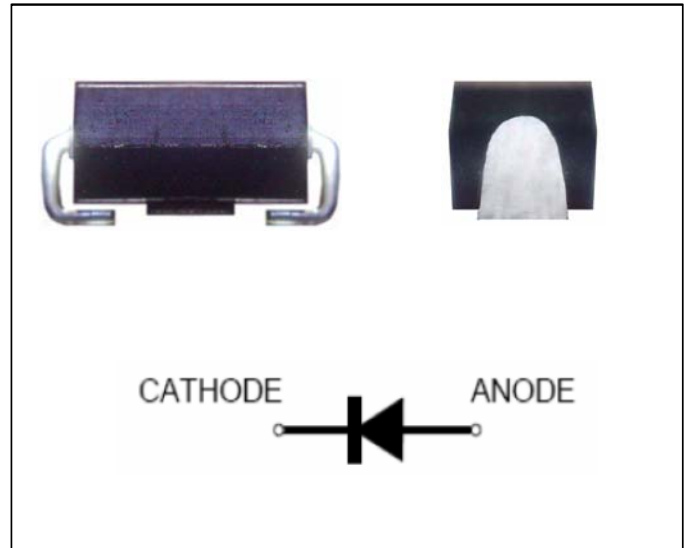
### 1. FEATURES

- \* 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 TA=75°C with no thermal runaway
- \* Typical IR less than 1.0μA
- \* High temperature soldering guaranteed: 260°C/10 seconds

### 2. 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., 0.085 g  
**Handling precaution:** None

**Surface Mount General Purpose Plastic Rectifiers**  
**Reverse Voltage 50 to 1000V**  
**Forward Current 1.0A**



We declare that the material of product compliance with RoHS requirements.

### 3. Electrical Characteristic

**Maximum Ratings & Thermal Characteristics Ratings** at 25°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 $T_A = 75^\circ C$	$I_F(AV)$	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							°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-50 to +150							°C

**Electrical Characteristics Ratings** at 25°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 $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 100^\circ C$	IR	5.0 200							μA
Typical junction capacitance at 4.0V, 1MHz	CJ	15.0							PF

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

Fig. 1 – Forward Current Derating Curve

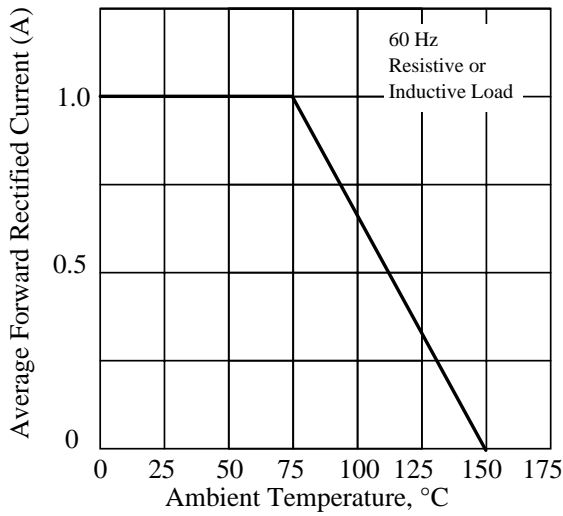


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

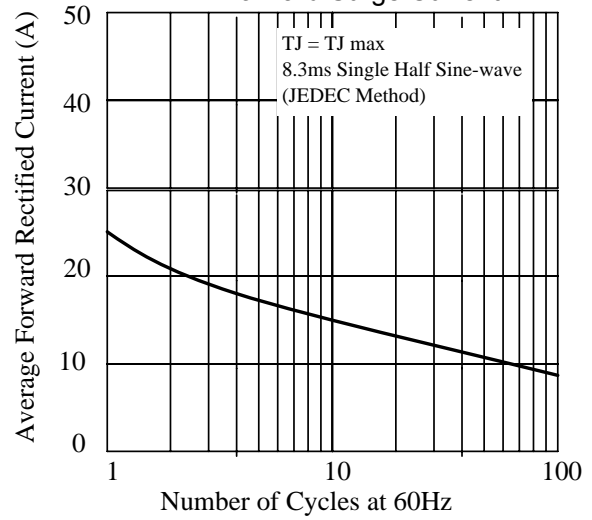


Fig 3. – Typical Instantaneous Forward Characteristics

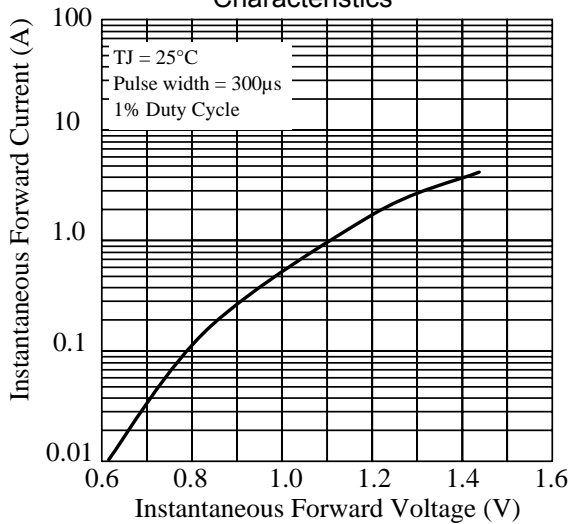


Fig 4. – Typical Reverse Characteristics

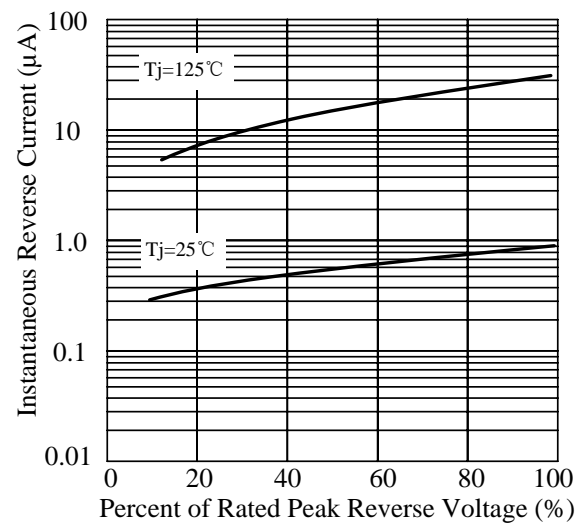


Fig 5. – Typical Junction Capacitance

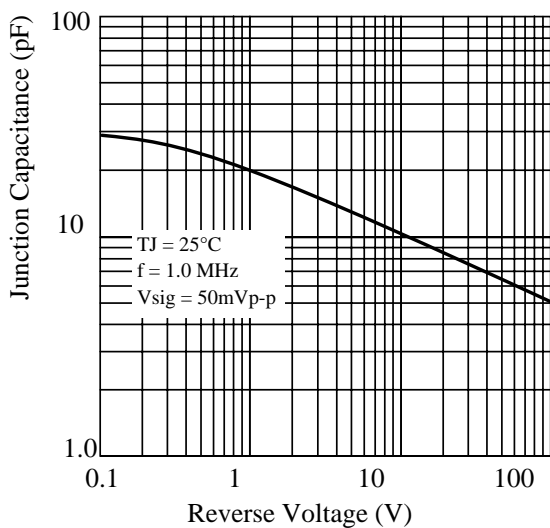
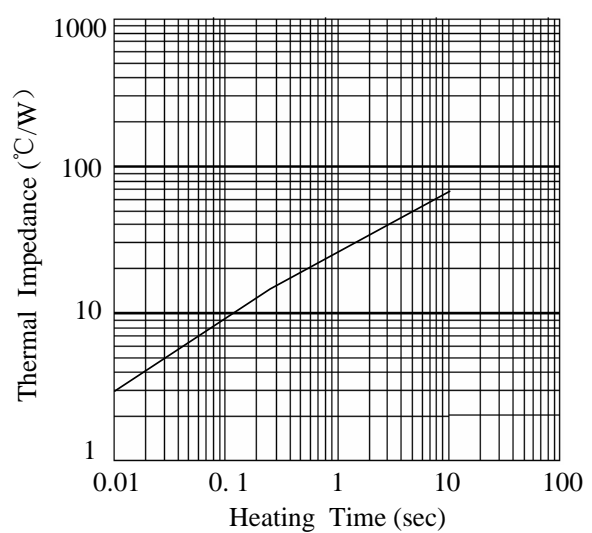
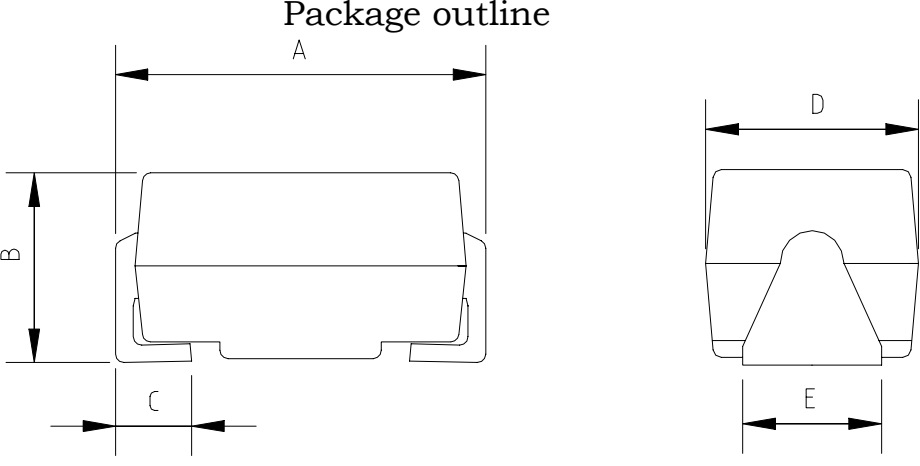


Fig 6. – Transient Thermal Impedance



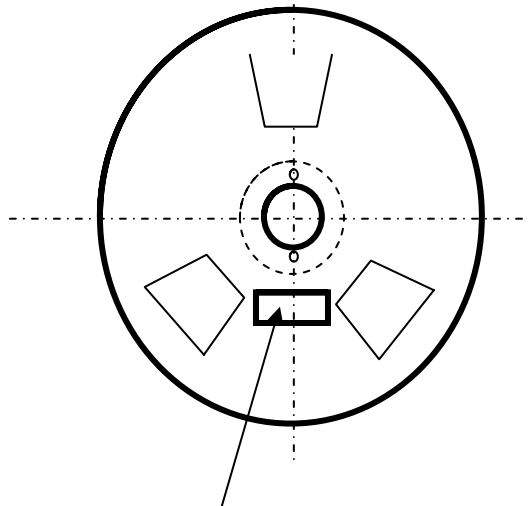
**5.Package Dimensions in inches and (millimeters)**

Package outline				
				
Dimensions				
	inches		mm	
	Min.	Max.	Min.	Max.
A	0.189	0.213	4.8	5.4
B	0.075	0.098	1.9	2.5
C	0.031	0.055	0.8	1.4
D	0.091	0.114	2.3	2.9
E	0.059	0.098	1.5	2.5

Note:  
 DO-214AC  
 molded plastic case  
 The marking band indicates the cathode

## SMA Packing Specification

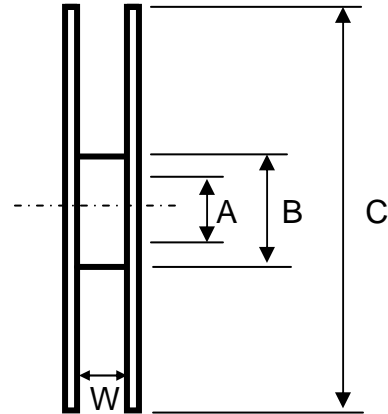
### 1. 卷盘规格/Reel Packing



Label stike this position

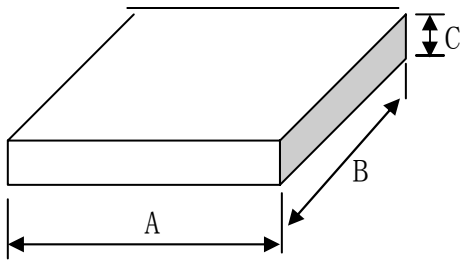
Item	Q'ty/Taping
7"	2K
13"	5K

Unit:mm



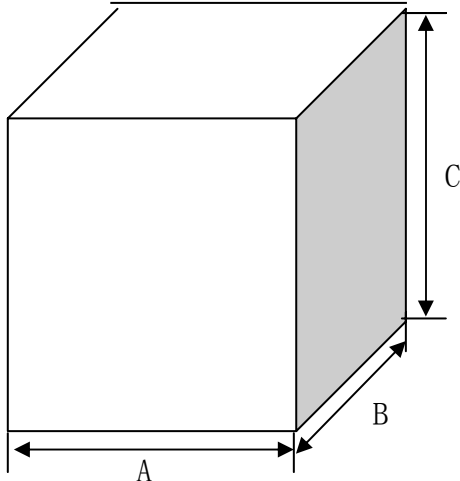
Item	Symbol	Dimension
13" Size	A	13.0±0.2
	B	75.0±0.5
	C	330±1.0
	W	13.2±1.0
7" Size	A	13.0±0.2
	B	54±0.5
	C	177±1.0
	W	13.2±1.0

### 2. 内箱规格/ Inside Box Specification



Item	Symbol	Dimension
Size	A	335±2
	B	335±2
	C	40±1

### 3. 外箱规格/Outer Box Specification



Item	Symbol	Dimension
Size	A	350±2
	B	350±2
	C	345±2