



DESCRIPTION

The SN1A~SN1M is available in SMA Package.

ORDERING INFORMATION

Package Type	Part Number
SMA	SN1A
	SN1B
	SN1D
	SN1G
	SN1J
	SN1K
	SN1M
Package	5,000 PCS/REEL
AiT provides all RoHS Compliant Products	

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
- Available in SMA Package

PIN DESCRIPTION



MECHANICAL DATA

Case: JEDEC DO-214AC, molded plastic body

Terminals : Solder able 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

**ABSOLUTE MAXIMUM RATINGS**

at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	SN1A	SN1B	SN1D	SN1G	SN1J	SN1K	SN1M	Unit
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							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J , T_{STG}	-50 to +150							$^\circ\text{C}$
Maximum instantaneous forward voltage at 1.0A	V_F	1.1							V
Maximum DC reverse current $T_A = 25^\circ\text{C}$	I_R	5.0							μA
at rated DC blocking voltage $T_A = 100^\circ\text{C}$		50							
Typical junction capacitance at 4.0V, 1MHz	C_J	15.0							PF

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



TYPICAL PERFORMANCE CHARACTERISTICS

Figure 1. Forward Current Derating Curve

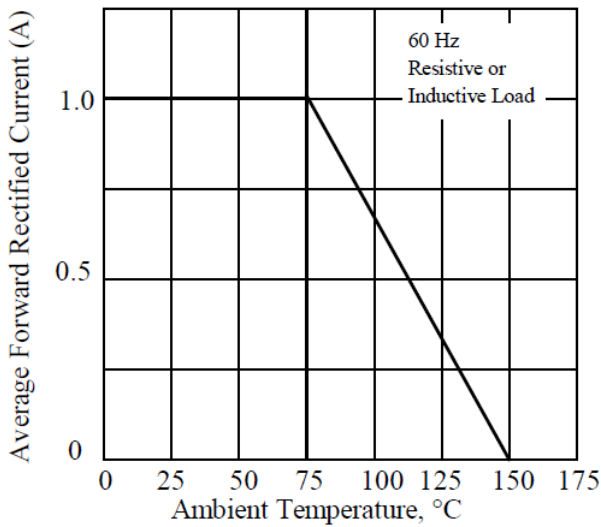


Figure 2. Maximum Non-repetitive Peak Forward Surge Current

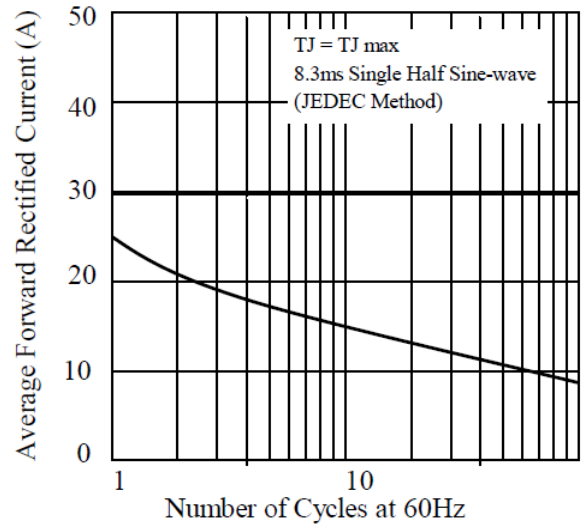


Figure 3. Typical Instantaneous Forward Characteristics

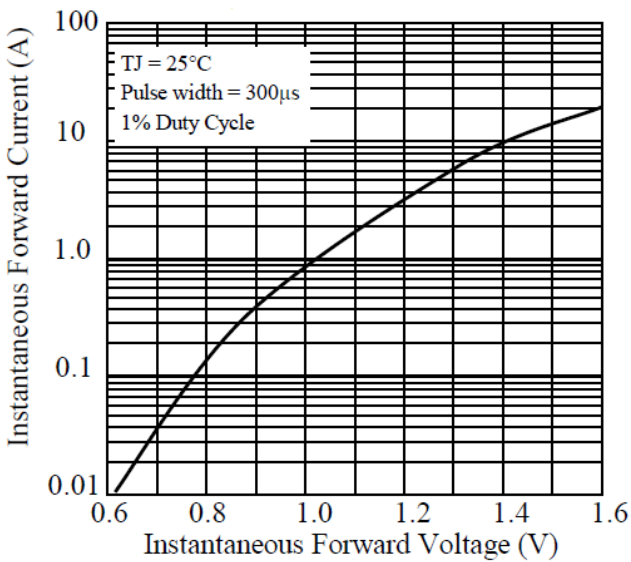


Figure 4. Typical Reverse Characteristics

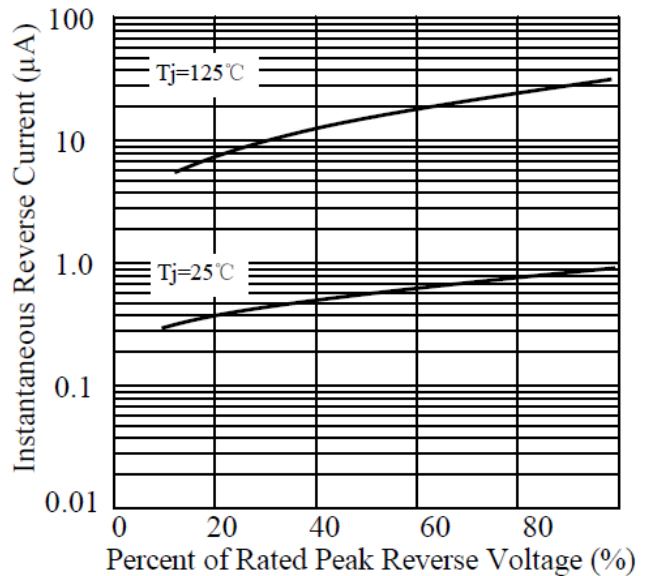




Figure 5. Typical Junction Capacitance

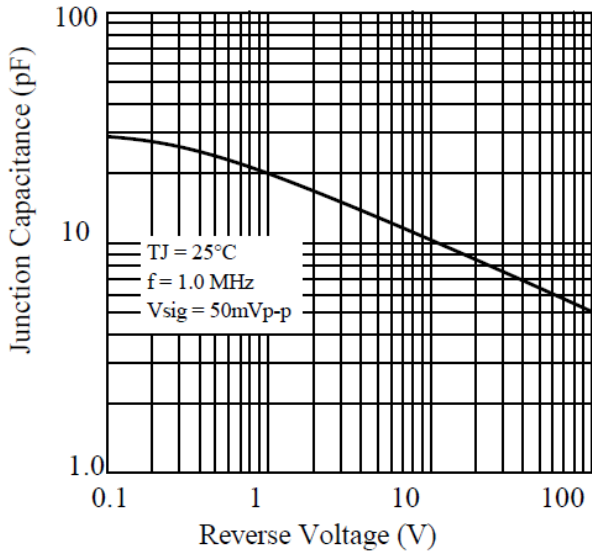
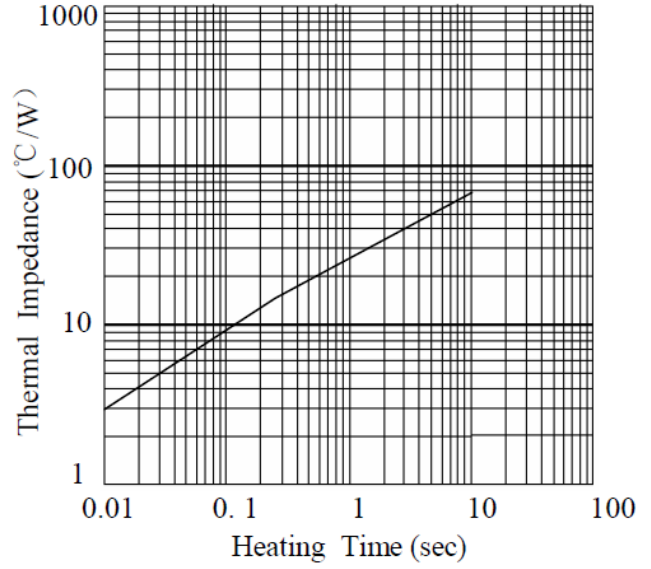


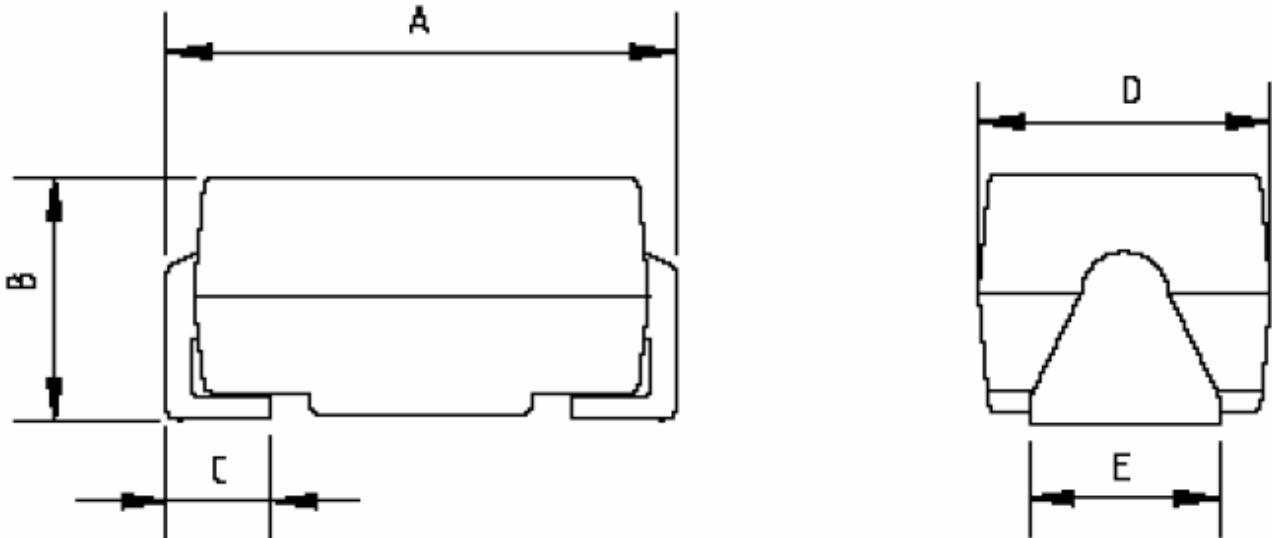
Figure 6. Transient Thermal Impedance





PACKAGE INFORMATION

Dimension in SMA Package (Unit: mm)



DIM	INCHES		MILLIMETERS	
	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



AiT Components Inc.

www.ait-components.com

SN1X

SURFACE MOUNT GENERAL RECTIFIER DIODES

REVERSE VOLTAGE 50-1000V

IMPORTANT NOTICE

AiT Components (AiT) reserves the right to make changes to any its product, specifications, to discontinue any integrated circuit product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

AiT Components' integrated circuit products are not designed, intended, authorized, or warranted to be suitable for use in life support applications, devices or systems or other critical applications. Use of AiT products in such applications is understood to be fully at the risk of the customer. As used herein may involve potential risks of death, personal injury, or severe property, or environmental damage. In order to minimize risks associated with the customer's applications, the customer should provide adequate design and operating safeguards.

AiT Components assumes no liability to customer product design or application support. AiT warrants the performance of its products of the specifications applicable at the time of sale.