

KN4001 THRU KN4007

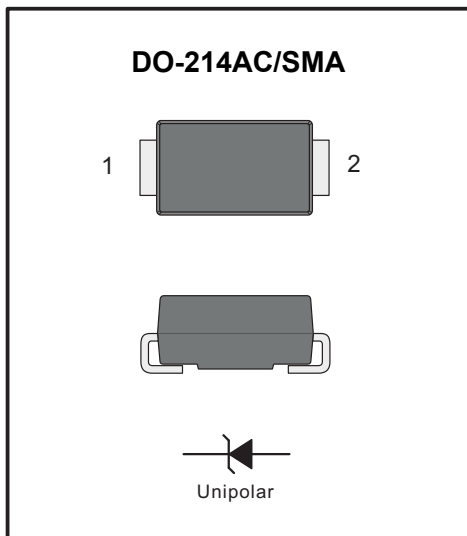
Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere



SURFACE MOUNT GENERAL RECTIFIER

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Glass passivated Junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed 250 C/10 seconds at terminals

Mechanical Data

- ◆ **Case** : JEDEC DO-214AC/SMA Molded plastic body
- ◆ **Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ **Polarity** : Polarity symbol marking on body
- ◆ **Mounting Position** : Any
- ◆ **Weight** : 0.0023 ounce, 0.07 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	KN4001	KN4002	KN4003	KN4004	KN4005	KN4006	KN4007	UNITS
		M1	M2	M3	M4	M5	M6	M7	
Marking Code									
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 at $T_L=110^\circ C$	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Maximum instantaneous forward voltage at 1.0A	V_F	1.1							V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ C$ $T_A=125^\circ C$	I_R	5 50							μA
Typical junction capacitance (NOTE 1)	C_J	15.0							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	75.0							$^\circ C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

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Fig.1 Forward Current Derating Curve

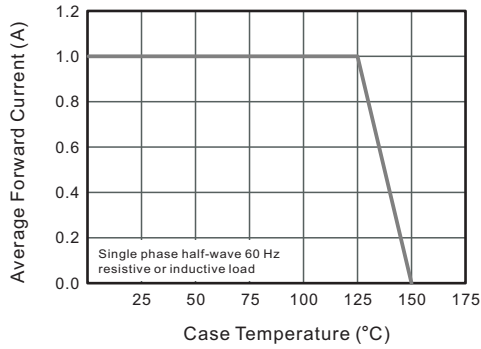


Fig.2 Typical Instaneous Reverse Characteristics

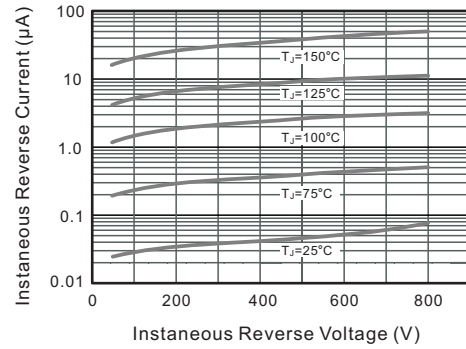


Fig.3 Typical Forward Characteristic

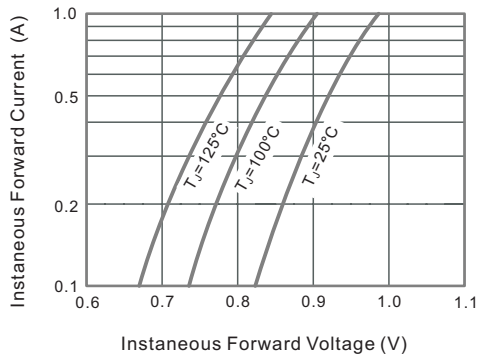


Fig.4 Typical Junction Capacitance

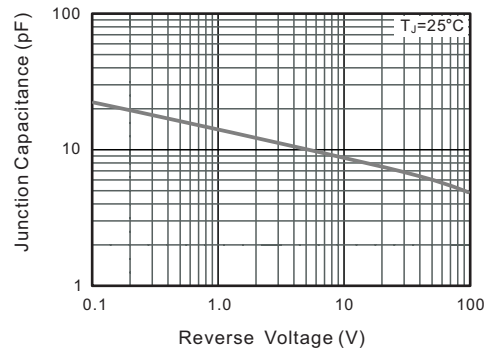
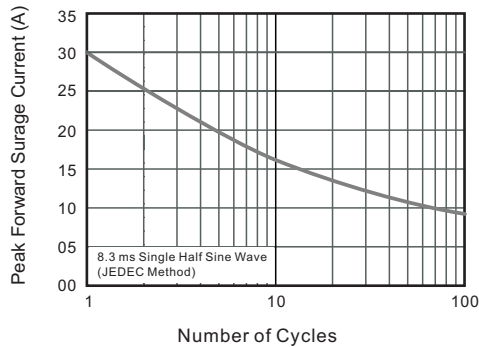


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



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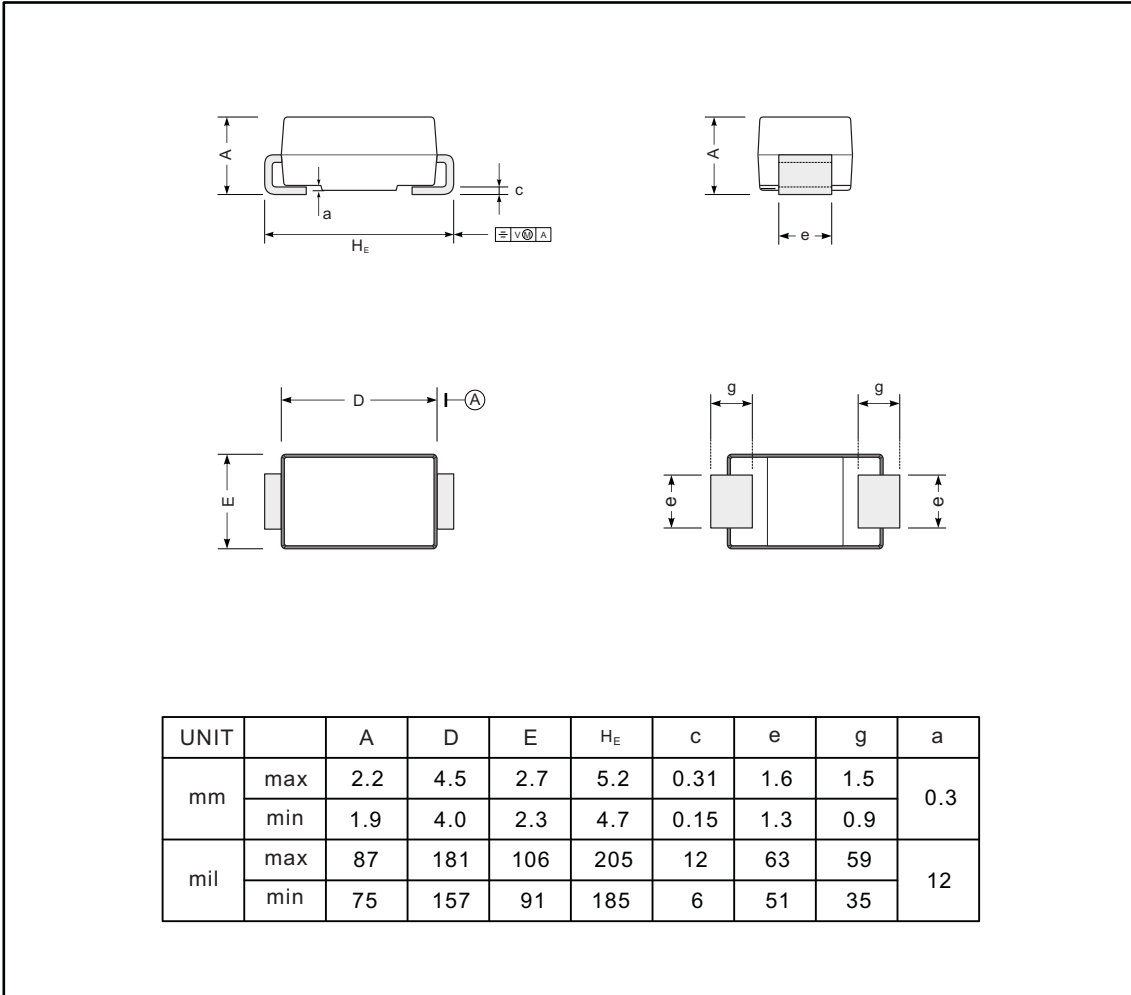
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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMA



The recommended mounting pad size

