



WEET Technology Company Limited

General Purpose Rectifiers

1N4001 THRU 1N4007

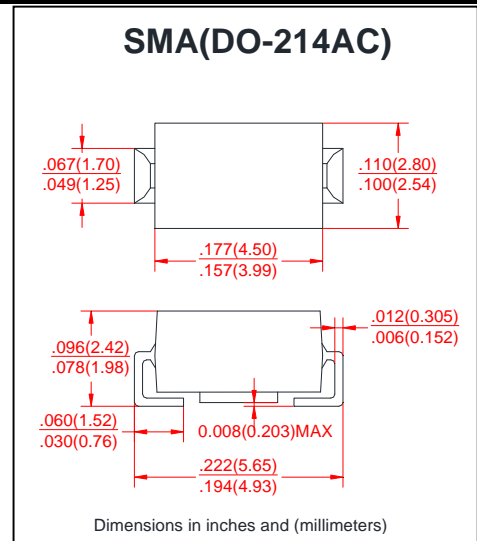
VOLTAGE RANGE 50 to 1000 Volts
CURRENT 1.0 Ampere

FEATURES

- Low forward voltage drop
- Low leakage current
- High forward surge capability

MECHANICAL DATA

- Case: SMA mold plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Indicated by cathode band
- Lead: Solder plated, solderable per MIL-STD-750 method 2026
- Mounting position: Any



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 derate current by 20%

	SYMBOLS	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_A=75^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	2.5							μA
	$T_A = 125^\circ\text{C}$	50							
Typical Junction Capacitance (NOTE 1)	C_J	12							pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	55							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at $8.0 \times 8.0\text{mm}^2$ copper pad areas.



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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

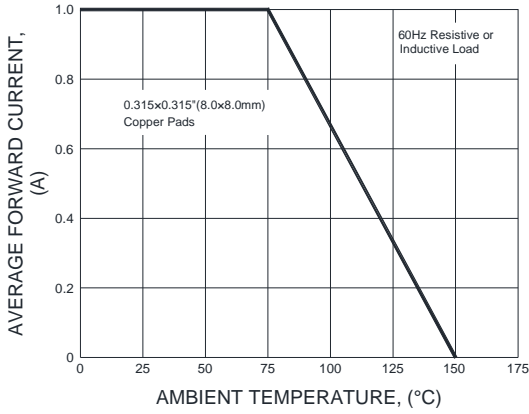


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

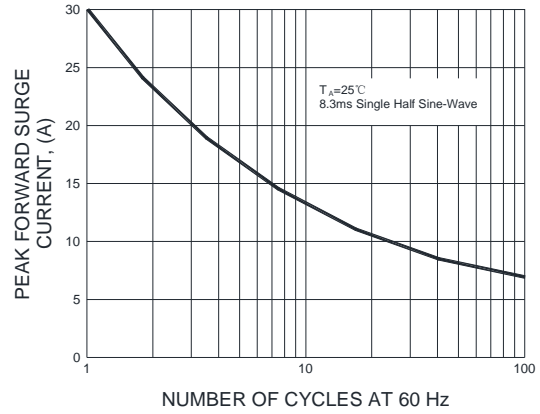


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

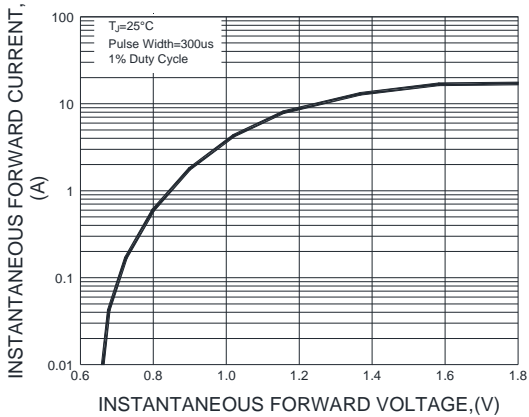


FIG.4-TYPICAL REVERSE CHARACTERISTICS

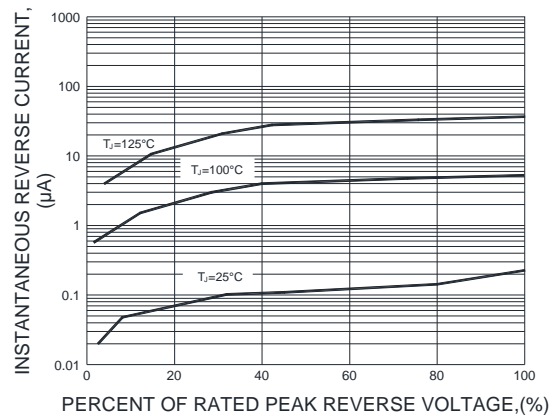
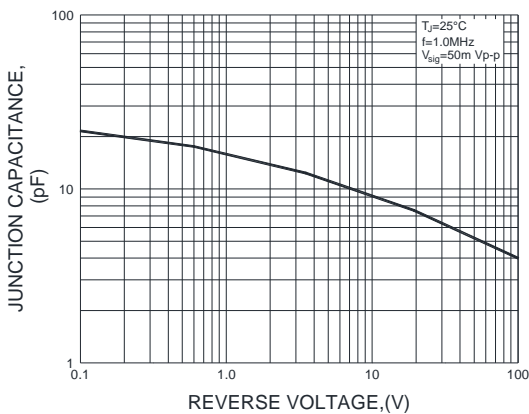


FIG.5-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.