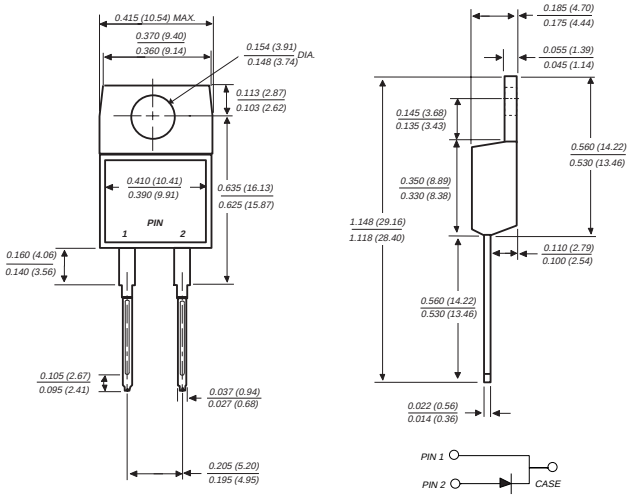
NS8AT THRU NS8MT

GLASS PASSIVATED GENERAL PURPOSE PLASTIC RECTIFIER

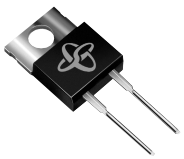
Reverse Voltage - *50 to 1000 Volts* ***Forward Current -*** *8.0 Amperes*

TO-220AC



Dimensions in inches and (millimeters)

FEATURES



- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High forward current capability
- High surge current capability
- Low forward voltage drop
- Glass passivated chip junction
- High temperature soldering guaranteed: 260°C/10 seconds, 0.160" (4.06 mm) lead length

MECHANICAL DATA

Case: JEDEC TO-220AB molded plastic body over passivated chip
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Torque: 5 in. - lbs. max.
Mounting Position: Any
Weight: 0.064 ounce, 1.81 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	NS8 AT	NS8 BT	NS8 DT	NS8 GT	NS8 JT	NS8 KT	NS8 MT	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_C=100°C	$I_{(AV)}$	8.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125.0							Amps
Maximum instantaneous forward voltage at 8.0A	V_F	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage T_C=25°C T_C=100°C	I_R	10.0 100.0							μA
Typical junction capacitance (NOTE 1)	C_J	55.0							pF
Typical thermal resistance (NOTE 2)	$R_{\Theta JC}$	3.0							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

NOTES:
(1) Measured at 1.0 MHz and applied reversed voltage of 4.0 Volts
(2) Thermal resistance from junction to case mounted on heatsink

GENERAL SEMICONDUCTOR®

RATINGS AND CHARACTERISTIC CURVES NS8AT THRU NS8MT

FIG.1 - FORWARD CURRENT DERATING CURVE

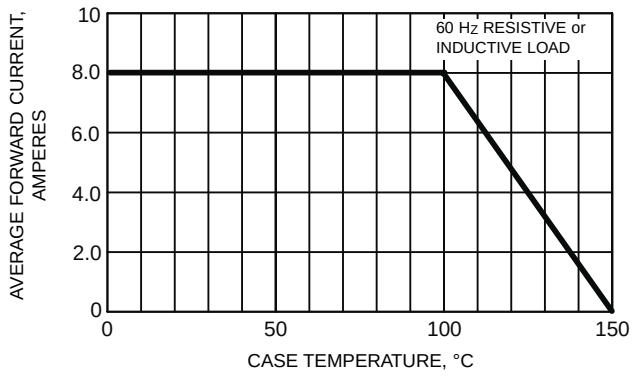


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

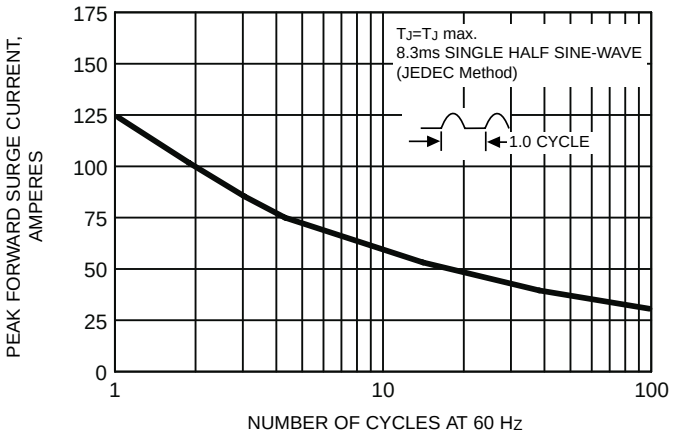


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

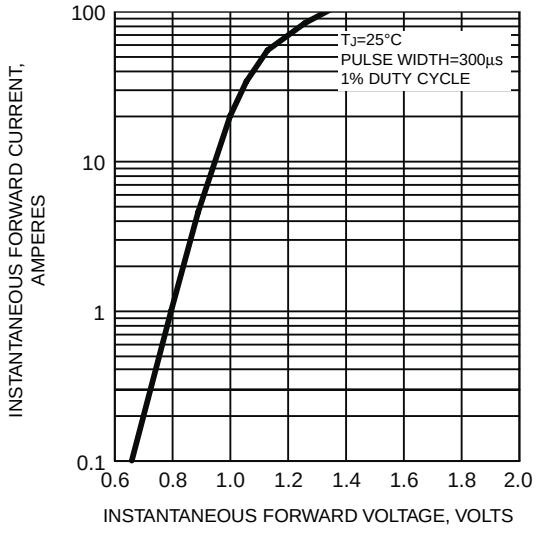


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

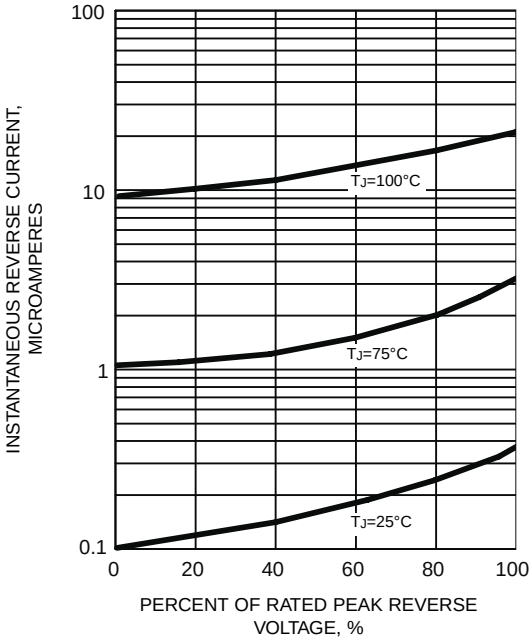
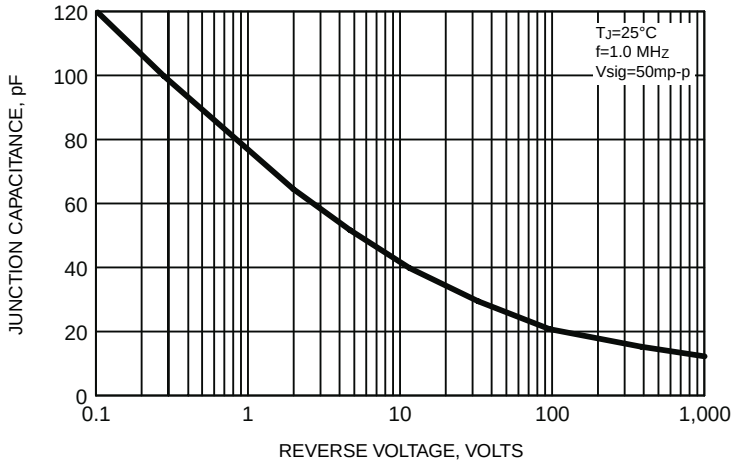


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



GENERAL SEMICONDUCTOR®