

# NS8AT - NS8MT

# Glass Passivated General Purpose

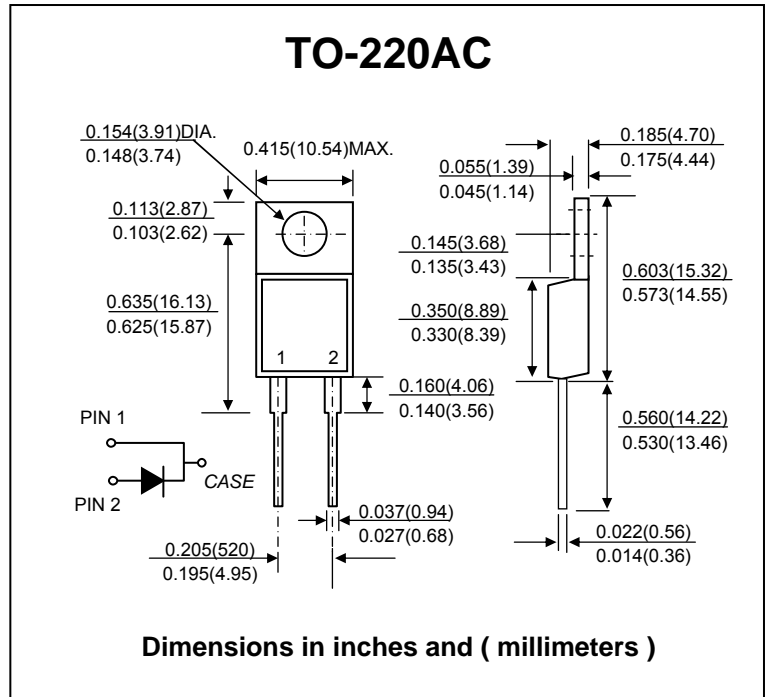
**PRV : 50 - 1000 Volts**  
**Io : 8.0 Ampere**

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Glass passivated chip junction
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : Epoxy, Molded
- \* Lead Temperature for Soldering Purposes:  
260°C Max. for 10 Seconds
- \* Polarity: As marked
- \* Mounting Position: Any
- \* Weight : 2.24 grams (Approximately)



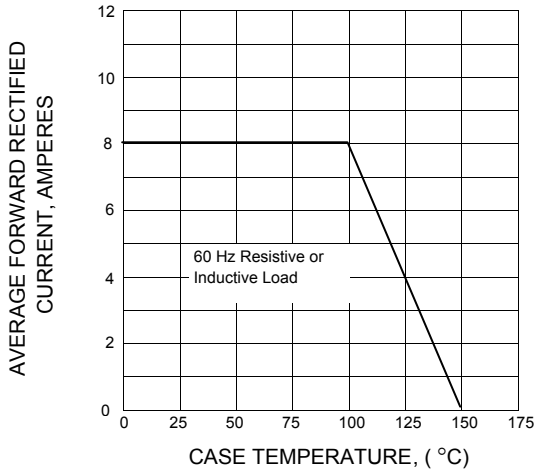
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

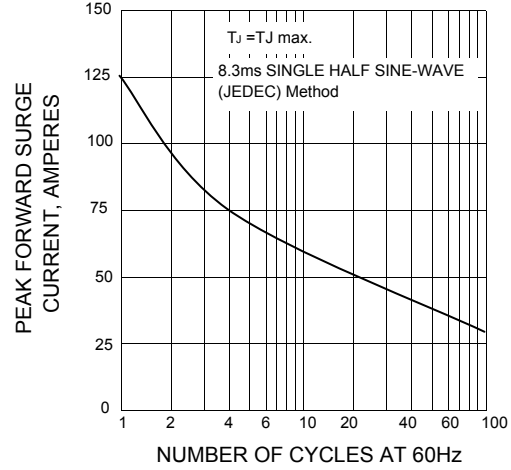
RATING	SYMBOL	NS8 AT	NS8 BT	NS8 DT	NS8 GT	NS8 JT	NS8 KT	NS8 MT	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum Working Reverse Voltage	$V_{RWM}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current, $T_c = 100^\circ\text{C}$	$I_{F(AV)}$	8.0							A
Maximum Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	125							A
Maximum Instantaneous Forward Voltage at $I_F = 8\text{ A}$	$V_F$	1.1							V
Maximum Reverse Current at $T_c = 25^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
Rated DC Blocking Voltage $T_c = 100^\circ\text{C}$	$I_{R(H)}$	100							$\mu\text{A}$
Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$	3.0							$^\circ\text{C/W}$
Junction Temperature Range	$T_J$	- 55 to + 150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 55 to + 150							$^\circ\text{C}$

## RATING AND CHARACTERISTIC CURVES ( NS8AT ~ NS8MT )

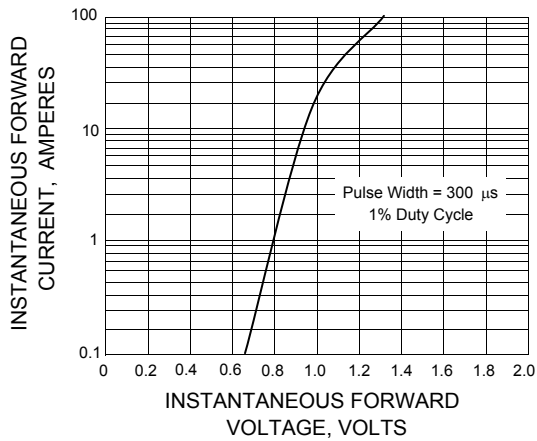
**FIG.1 - FORWARD CURRENT DERATING CURRENT**



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



**FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**

