

T-23-07

NP16AT THRU NP16MT

16 AMPERE SILICON RECTIFIER

GENERAL INSTRUMENT



FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Exceeds environmental standards of MIL-STD-19500.
- High current capability
- High surge capacity
- Low forward voltage

MECHANICAL DATA

Case: TO-220 molded plastic
 Terminals: Lead solderable per MIL-STD-202, Method 208
 Polarity: As marked
 Mounting position: Any
 Weight: .08 ounces, 2.24 grams

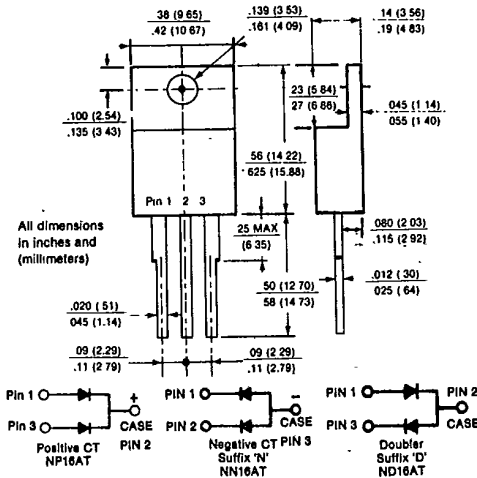
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

16.0 Amperes

TO-220



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	NP16AT	NP16BT	NP16DT	NP16GT	NP16JT	NP16KT	NP16MT	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Tc = 100° C	16.0							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	300							A
Maximum Instantaneous Forward Voltage at 8A	1.1							V
Maximum Reverse Current at Rated DC Blocking Reverse Voltage Tc = 25° C Per Element Tc = 100° C	10 100							μ A μ A
Typical Thermal Resistance R θ JC (Note 1)	3.0							°C/W
Typical Junction Capacitance (Note 2)	65							pF
Storage and Operating Temperature Range Tc, Tsta	-65 to +150							°C

NOTES:
 1. Thermal resistance for each junction to case
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts

7.23.07

**RATING CHARACTERISTIC CURVES
NP16AT THRU NP16MT**

Fig. 1— FORWARD CURRENT DERATING CURVE

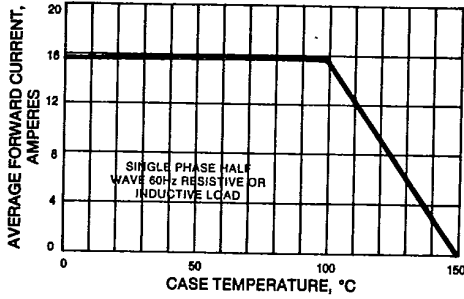


Fig. 2— TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

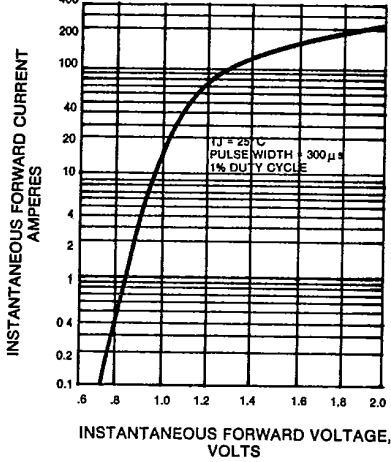


FIG. 3 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

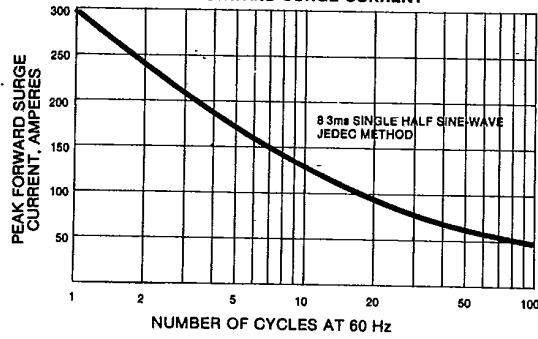


FIG. 4— TYPICAL REVERSE CHARACTERISTICS PER LEG

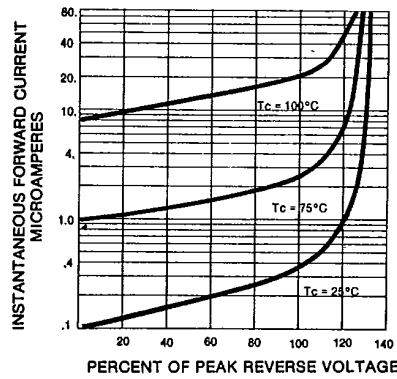


FIG. 5— TYPICAL JUNCTION CAPACITANCE

