

Y-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

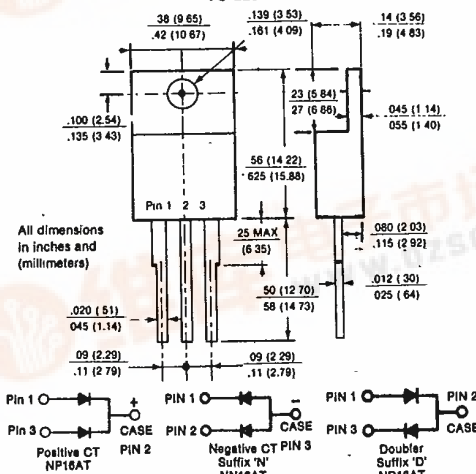
VOLTAGE RANGE

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							μA μA
Typical Thermal Resistance RθJC (Note 1)	3.0							°C/W
Typical Junction Capacitance (Note 2)	65							pF
Storage and Operating Temperature Range Tc, Tstg	-65 to +150							°C

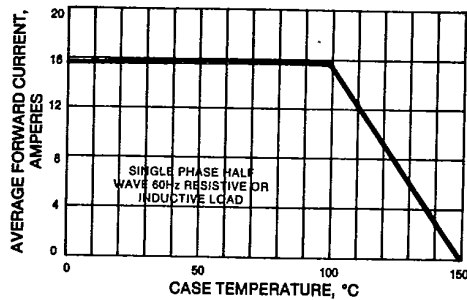
NOTES:

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

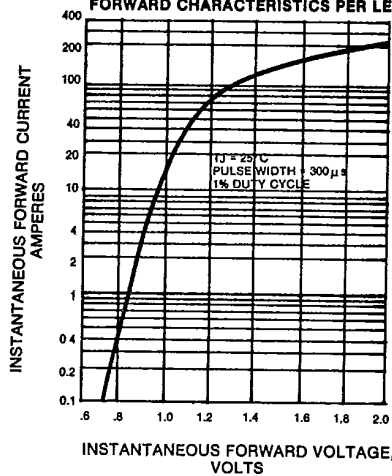
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**RATING CHARACTERISTIC CURVES
NP16AT THRU NP16MT**

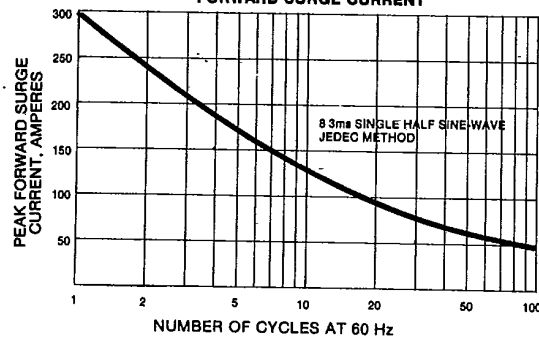
Fig. 1— FORWARD CURRENT DERATING CURVE



**Fig. 2— TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS PER LEG**



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



**FIG. 4— TYPICAL REVERSE
CHARACTERISTICS PER LEG**

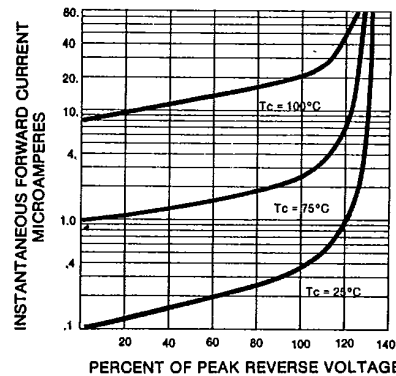


FIG. 5— TYPICAL JUNCTION CAPACITANCE

