RP16AT THRU RP16KT

16 AMPERE FAST RECOVERY RECTIFIER

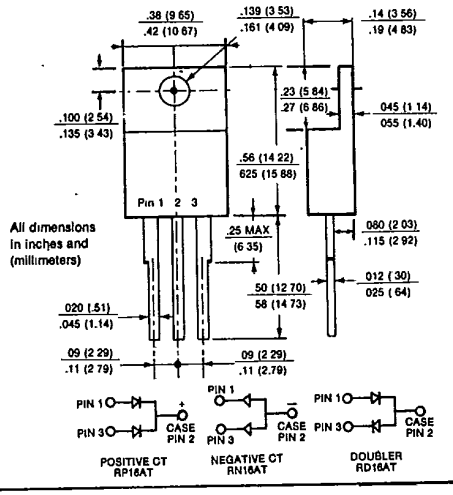
GENERAL INSTRUMENT



VOLTAGE RANGE
50 to 1000 Volts

CURRENT
16 Amperes

TO-220 CT



FEATURES

- Dual rectifier construction
- 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
- Fast switching for high efficiency

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

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%.

	RP16AT	RP16BT	RP16DT	RP16GT	RP16JT	RP16KT	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	V
Maximum RMS Voltage	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	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)	200						A
Maximum Forward Voltage at 8.0A per element	1.2			1.3			V
Maximum Average Reverse Current At Peak Reverse Voltage Tc = 25°C Tc = 100°C	25 250						μA μA
Typical Junction Capacitance (Note 1)	30						pF
Maximum Reverse Recovery Time (Note 2)	150			200	250		ns
Typical Thermal Resistance RθJC (Note 3)	3.0						°C/W
Storage and Operating Temperature Range TJ	-65 to +150						°C

NOTES:
1. Measured at 1 MHz and applied reverse voltage of 4.0 volts
2. Reverse Recovery Test Conditions: IF = .5A, IR = 1A, Irr = .25A
3. Thermal Resistance for each junction to case.

RATING CHARACTERISTIC CURVES
RP16AT THRU RP16KT

FIG. 1—FORWARD CURRENT DERATING CURVE

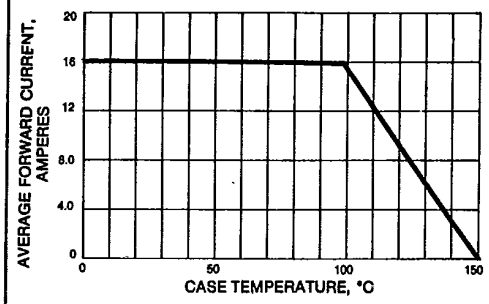


FIG. 2—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

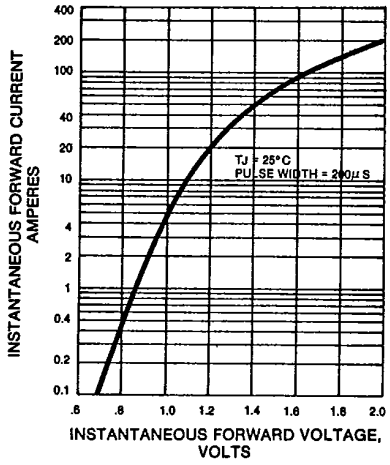


FIG. 3—MAXIMUM NON-REPETITVE SURGE CURRENT

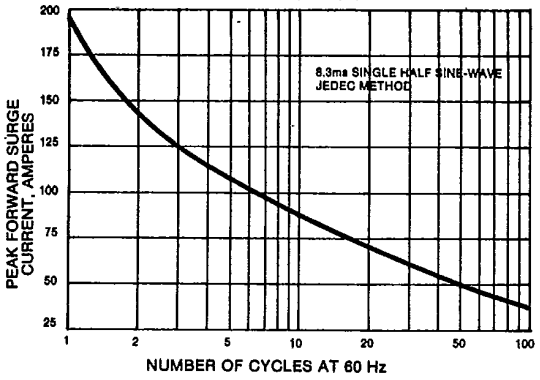


FIG. 4—TYPICAL REVERSE CHARACTERISTICS

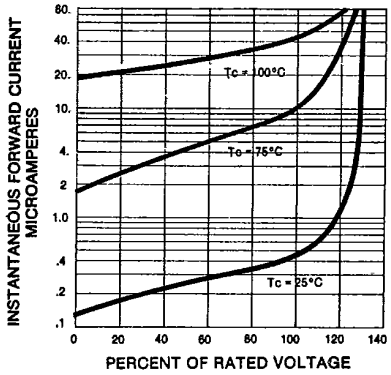


FIG. 5—TYPICAL JUNCTION CAPACITANCE

