



DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

6A05 / P600A
THRU
6A10 / P600M

TECHNICAL SPECIFICATIONS OF GENERAL PURPOSE SILICON RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts **CURRENT - 6.0 Amperes**

FEATURES

- * Low cost
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High surge current capability

MECHANICAL DATA

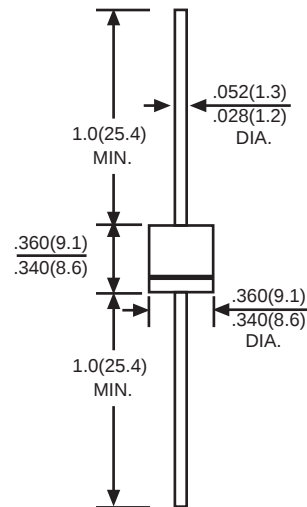
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rated flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 2.08 gram approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



R-6



Dimensions in inches and (millimeters)

		6A05	6A1	6A2	6A4	6A6	6A8	6A10	UNITS	
	SYMBOL	P600A	P600B	P600D	P600G	P600J	P600K	P600M		
Maximum Recurrent 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 375"(9.5mm) lead length at T _A = 60°C		I _O	6.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	300							Amps
Maximum Instantaneous Forward Voltage at 6.0A DC		V _F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T _A =25°C	I _R	10							μAmps
	@ T _A =100°C		500							
Maximum Full Load Reverse Current Average, Full Cycle .375"(9.5mm) lead length at T _L = 75°C				50						
Typical Junction Capacitance (Note 1)		C _J	150							pF
Typical Thermal Resistance (Note 2)		R _{θJA}	10							°C/W
Operating and Storage Temperature Range		T _J ,T _{STG}	-55 to +150							°C

Note 1: Measured at 1 MHz and applied reverse voltage of 4.0 volts.

Note 2: Typical thermal resistance from junction to ambient.

RATING AND CHARACTERISTIC CURVES (6A05 THRU 6A10) P600A P600M

FIG. 1
TYPICAL FORWARD CURRENT
DERATING CURVE

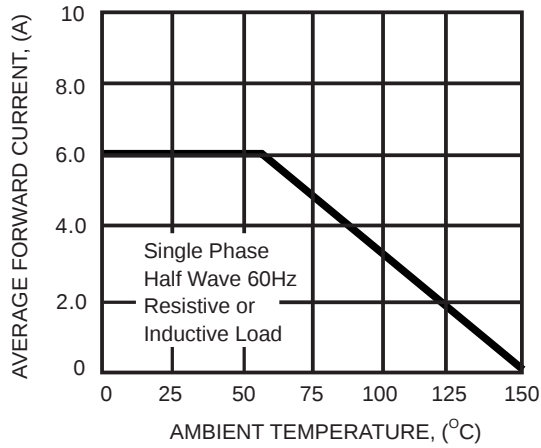


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

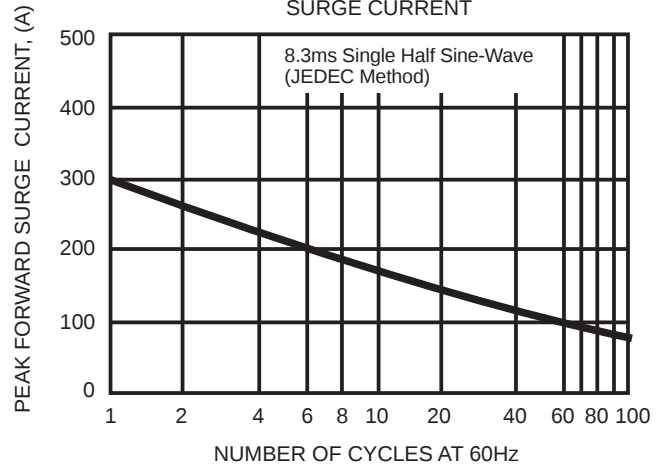


FIG. 3
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

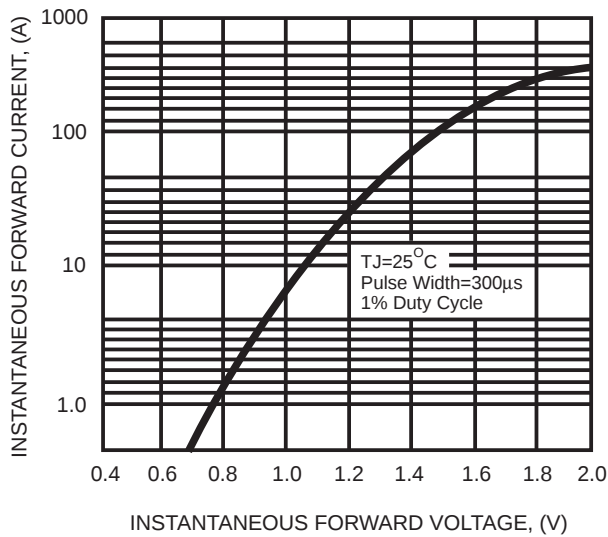


FIG. 4
TYPICAL REVERSE CHARACTERISTICS

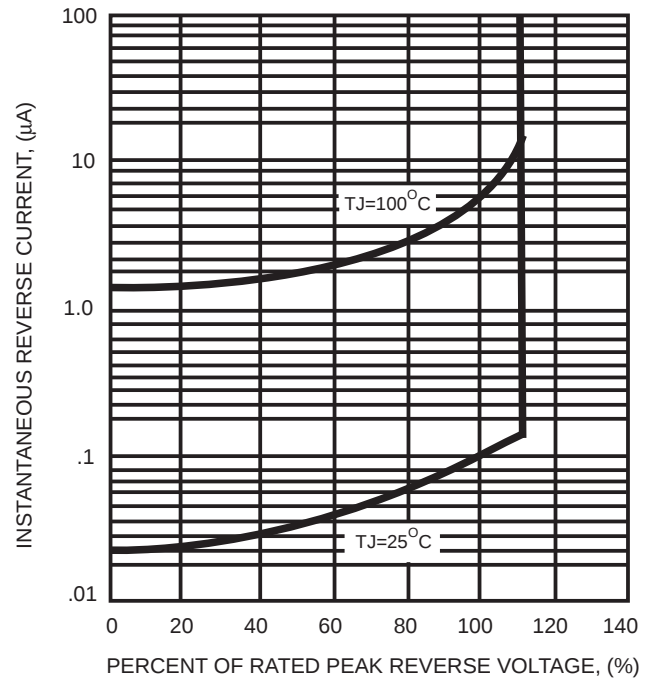
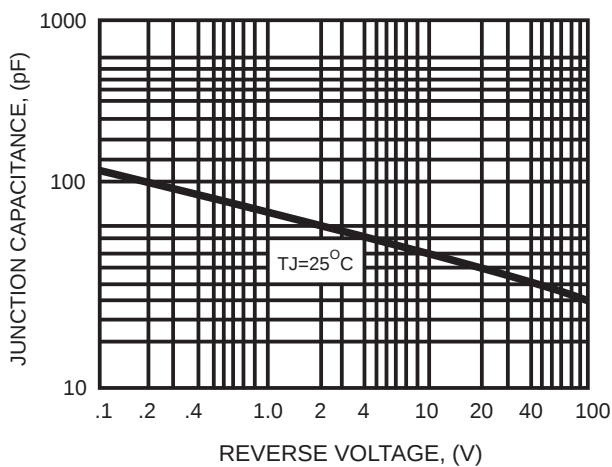


FIG. 5
TYPICAL JUNCTION CAPACITANCE



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