DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

6A05(M) P600A THRU 6A10(M) P600M

TECHNICAL SPECIFICATIONS OF GENERAL PURPOSE SILICON RECTIFIER

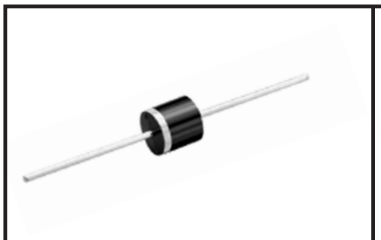
VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 6.0 Amperes*

FEATURES

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

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94-V0 rate flame retardant
* Lead: MIL-STD-202E, Method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 2.08 gram (6A0x / P600x)
* Weight: 1.65 gram (6A0xM)



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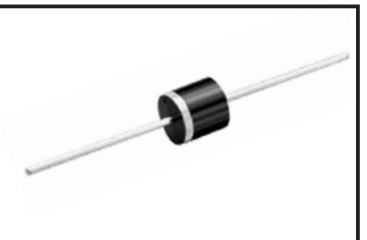

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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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%.

Dimensions in inches and (millimeters)

		SYMBOL	P600A 6A05(M)	P600B 6A1(M)	P600D 6A2(M)	P600G 6A4(M)	P600J 6A6(M)	P600K 6A8(M)	P600M 6A10(M)	UNITS
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	@TJ = 25°C	I_R	5.0							μAmps
	@TJ = 125°C		500							
Typical Junction Capacitance (Note 1)		C_J	150							pF
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	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 resistsnce from junction to ambient.

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

FIG. 1
TYPICAL FORWARD CURRENT
DERATING CURVE

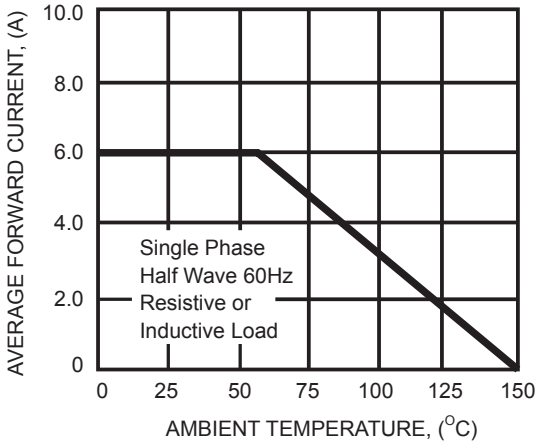


FIG. 2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

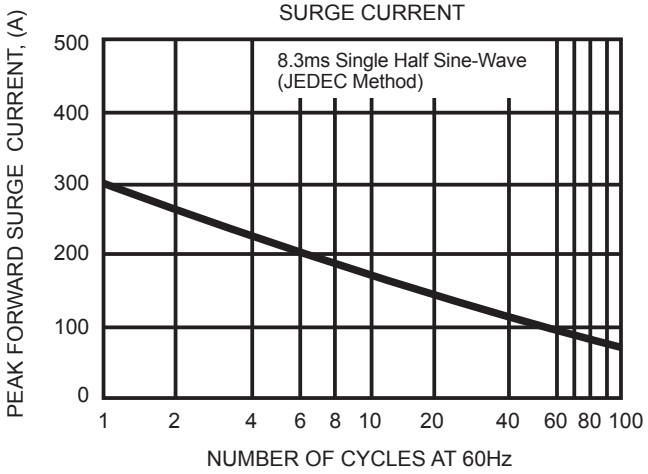


FIG. 3
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

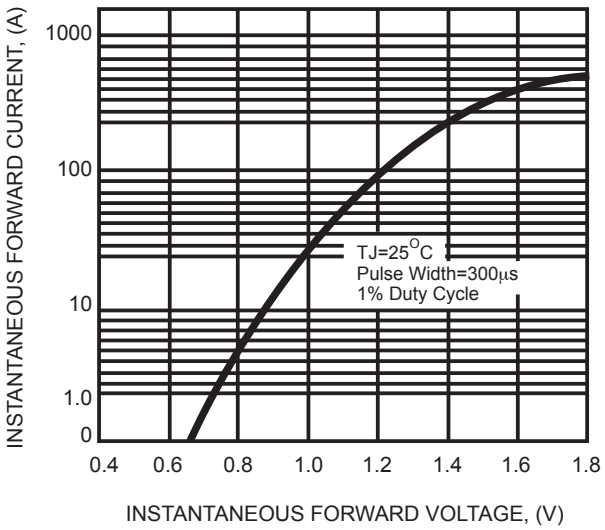


FIG. 4
TYPICAL REVERSE CHARACTERISTICS

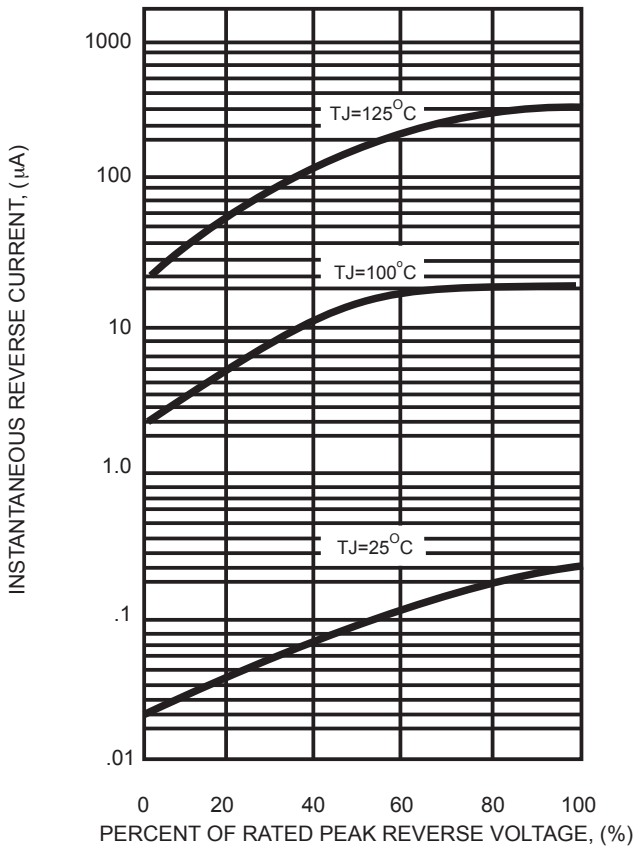
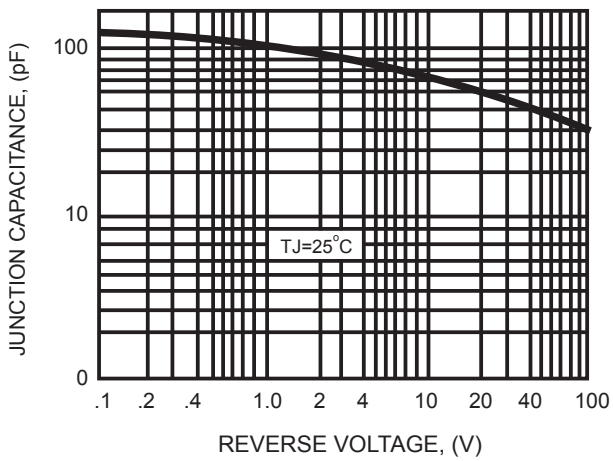


FIG. 5
TYPICAL JUNCTION CAPACITANCE



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