



P600A/P6A05 THRU P600M/P6A10

6.0 AMPS. SILICON RECTIFIERS

Voltage Range
50 to 1000 Volts
Current
6.0 Amperes

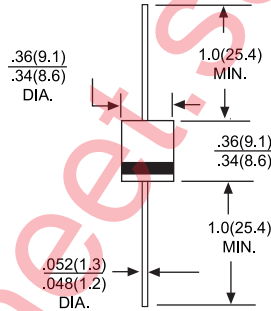
Features

- Plastic material used carries Underwriters Laboratory Classification 94V-0
- High forward current capability
- High surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds/.375"(.95mm) lead lengths at 5 lbs.(2.3kg) tension

Mechanical Data

- Cases:Molded plastic
- Lead:Plated axial leads,solderable per MIL-STD-750,Method 2026
- Polarity:Color band denotes cathode end
- Mounting position:Any
- Weight:0.07 ounce,2.1grams

R-6



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Type Number	P600A P6A05	P600B P6A1	P600D P6A2	P600G P6A4	P600J P6A6	P600K P6A8	P600M P6A10	UNITS	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	v
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	v
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	v
Maximum Average Forward Rectified Current at T _A = 60°C, 0.375"(9.5mm) Lead Length (Fig 1) T _L = 60°C, 0.125"(3.1mm) Lead Length (Fig 2)	I _{F(AV)}	6.0						22.0	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated LoadM (JEDEC method)	I _{FSM}	400.0							A
Maximum Instantaneous Forward Voltage @6.0A @100A	V _F	1.0					1.4		V
Maximum DC Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 100°C	I _R				5.0	1.0			µA mA
Typical Junction Capacitance (Note 1)	C _J	150.0							pF
Typical Reverse Recovery Time (Note 2)	T _{RR}	2.5							µs
Typical Thermal Resistance (Note 3)	R _{θJA} R _{θJC}				20.0	4.0			°C/W
Operating Junction and Storage Temperature Range	T _J ,T _{STG}	-50 to +150							°C

- NOTES: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.
2. Reverse Recovery Time Conditions:I_F=0.5a,I_R=1.0a,IRR=0.25a
3. Thermal Resistance from Junction to Ambient and from Junction to Lead at 0.375"(9.5mm) Lead Length,
P.C.B. Mounted with 1.1 x1.1"(30 x30mm) Copper Pads

RATING AND CHARACTERISTIC CURVES P600A/P6A05 THRU P600M/P6A10



FIG.1-MAXIMUM FORWARD CURRENT DERATING CURVE

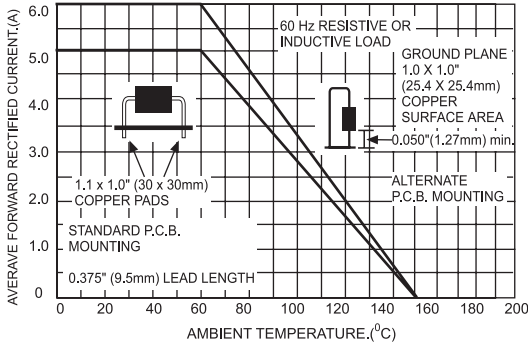


FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

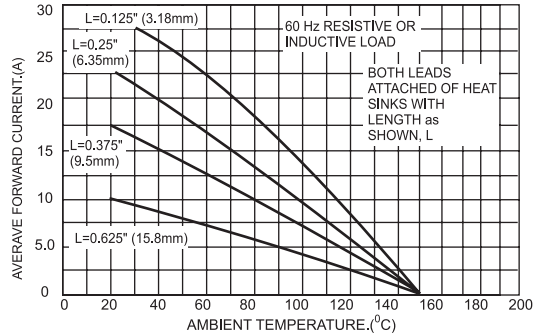


FIG.3-TYPICAL REVERSE CHARACTERISTICS

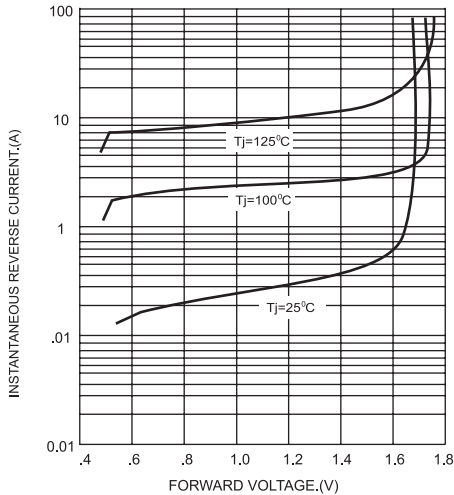


FIG.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

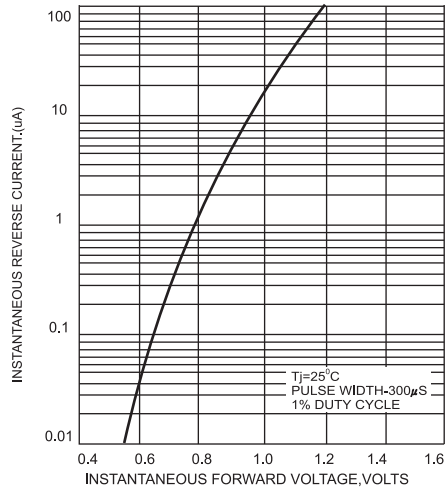


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

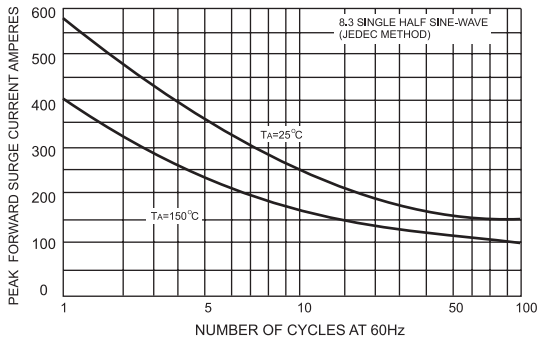


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

