

## 6A05 THRU 6A100

#### GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 6.0 Ampere

#### **FEATURES**

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capabilityHigh temperature soldering guaranteed: 250°C/10 seconds,0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

#### **MECHANICAL DATA**

Case: R-6 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750,

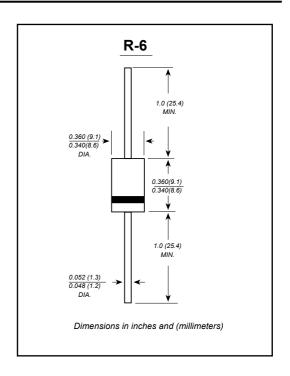
Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.072 ounce, 2.05 grams





#### 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 current derate by 20%.

Characteristic	SYMBOLS	6A05	6A10	6A20	6A40	6A60	6A80	6A100	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	I(AV)	6.0							А
0.375"(9.5mm) lead length at Ta=60°C	I(AV)								
Peak forward surge current		IFSM 400							
8.3ms single half sine-wave superimposed on	IFSM								Α
rated load (JEDEC Method)									
Maximum instantaneous forward voltage at 6.0A	VF	1.0							V
Maximum DC reverse current Ta=25°C		10.0 400							μА
at rated DC blocking voltage Ta=100℃	l <sub>R</sub>								
Typical junction capacitance (NOTE 1)	Cı	150						pF	
Typical thermal resistance (NOTE 2)	RθJA	10.0						°C/W	
Operating junction and storage temperature range	ТЈ, Тѕтс	-65 to +150						°C	

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

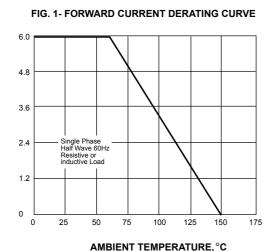
2.Thermal resistance from junction to ambient at 0.375" (9.5mm)lead length, P.C.B. mounted



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### **RATINGS AND CHARACTERISTIC CURVES**





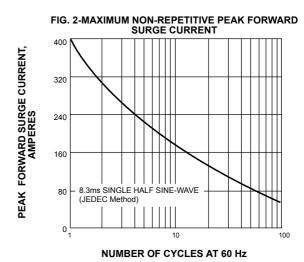
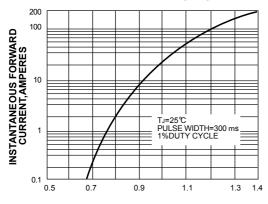


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLEAGE, **VOLTS** 



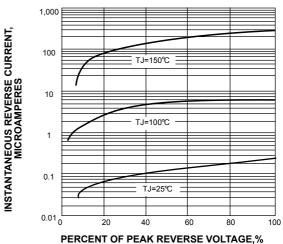
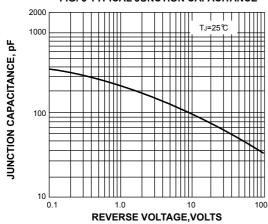
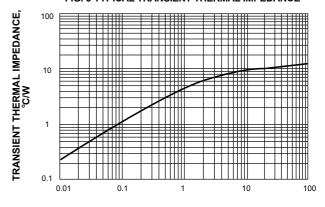


FIG. 5-TYPICAL JUNCTION CAPACITANCE



#### FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t,PULSE DURATION,sec.