

Diode Standard



RoHS
Compliant



Features:

- High efficiency, Low V_F
- High current capability
- High reliability
- High surge current capability
- Low power loss

Specifications:

Mechanical Data:

Cases	: Moulded plastic
Lead	: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
Polarity	: Colour band denotes cathode
High temperature soldering guaranteed	: 260°C/10 seconds/0.375", (9.5mm) lead lengths at 5lbs., (2.3kg) tension
Weight	: 1.65g

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	Symbol	6A05	6A10	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	V
Maximum RMS Voltage	V _{RMS}	35	70	
Maximum DC Blocking Voltage	V _{DC}	50	100	
Maximum Average Forward Rectified Current 0.375 (9.5mm) Lead Length at T _A = 60°C	I _(AV)	6.0		A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	250		
Maximum Instantaneous Forward Voltage at 6A	V _F	0.95		V

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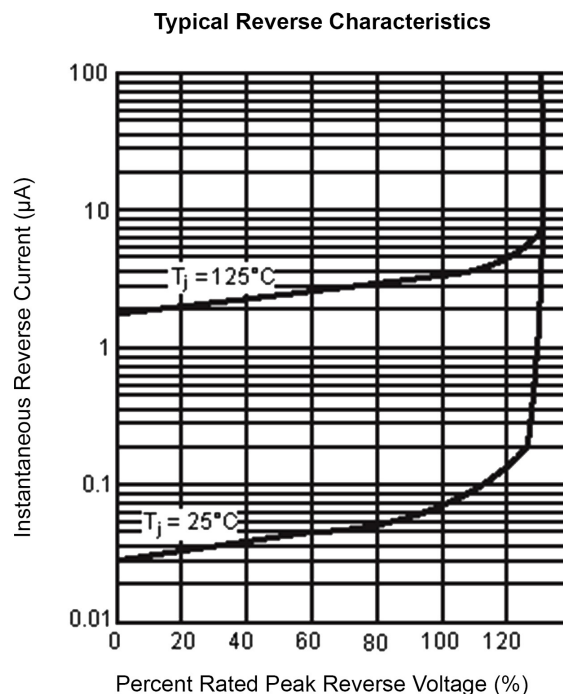
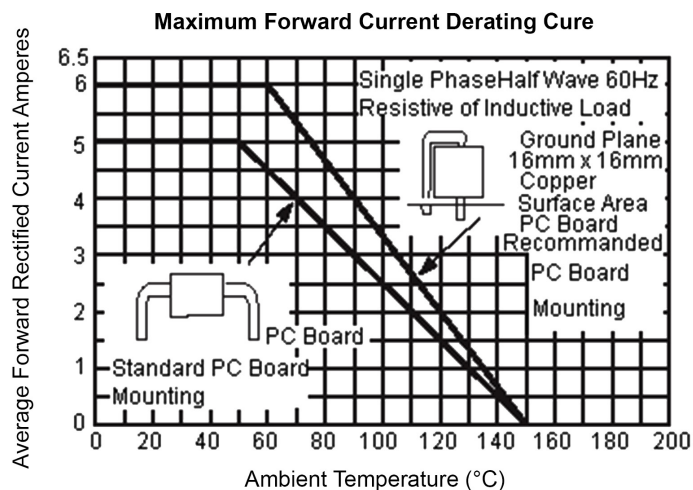


Type Number	Symbol	6A05	6A10	Units
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	I_R	10 400		μA μA
Maximum Full Load Reverse Current, Full Cycle Average 0.375 inch (9.5mm) Lead Length at $T_A = 75^\circ\text{C}$	HT_{IR}	50		μA
Typical Junction Capacitance (Note 1)	C_j	90		pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	35		$^\circ\text{C/W}$
Operating Temperature Range	T_J	-65 to +150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}			

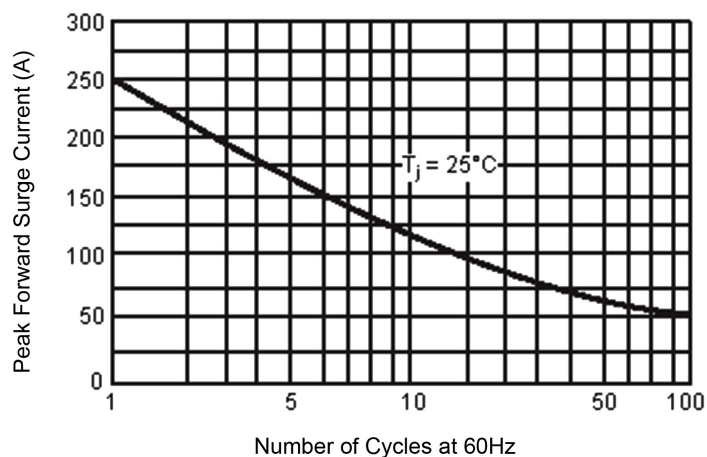
Notes: 1. Measured at 1MHz and Applied Reverse Voltage of 4V DC.

Notes: 2. Mount on Cu-Pad Size 16mm $\times$ 16mm on PCB.

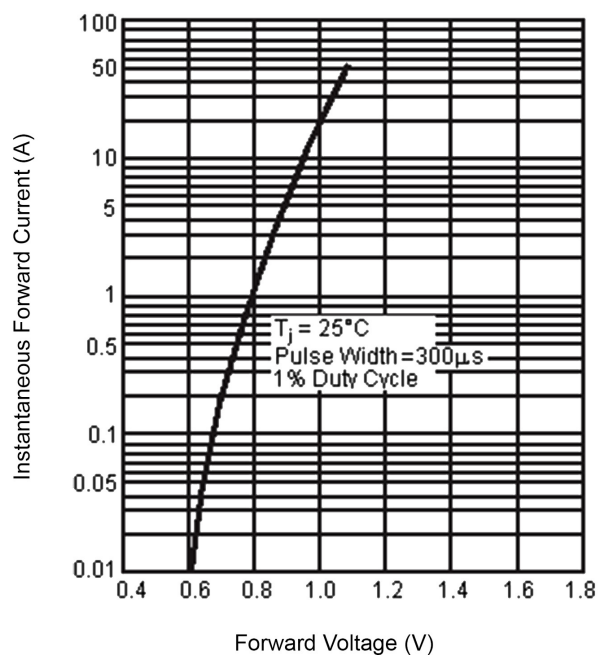
Ratings and Characteristic Curves (6A05 and 6A10)



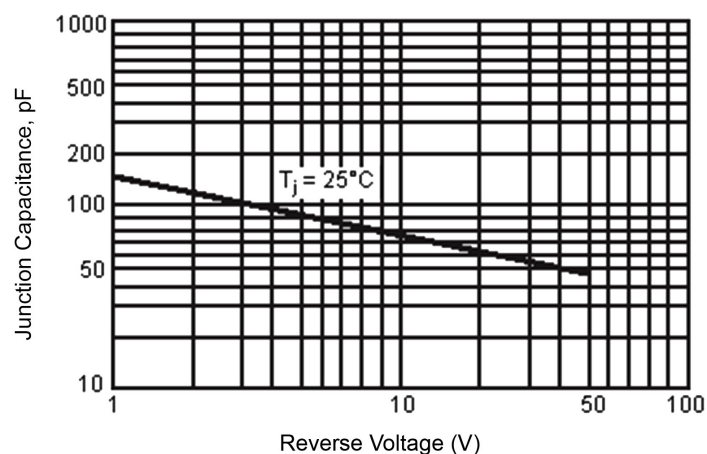
Maximum Non-Repetitive Forward Surge Current



Typical Forward Characteristics



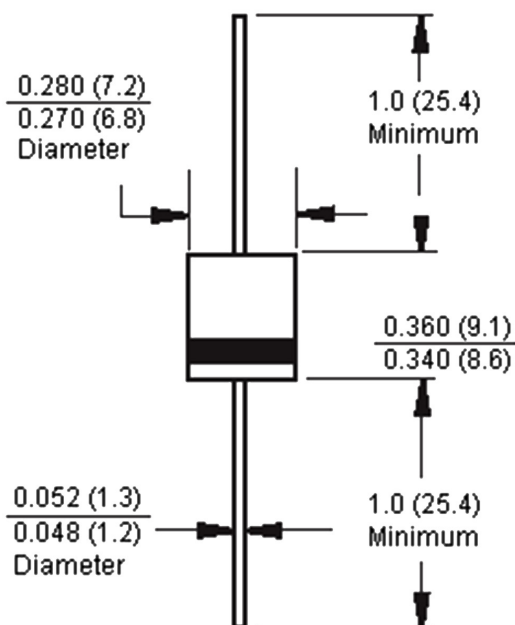
Typical Junction Capacitance



Diode Standard



R-6



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Diode, Standard, 6A, 50V	6A05
Diode, Standard, 6A, 100V	6A10

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