

GENERAL PURPOSE SILICON RECTIFIER

6A05 - 6A10

R-6

Plastic Leaded Package



High Surge Current Capability

ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

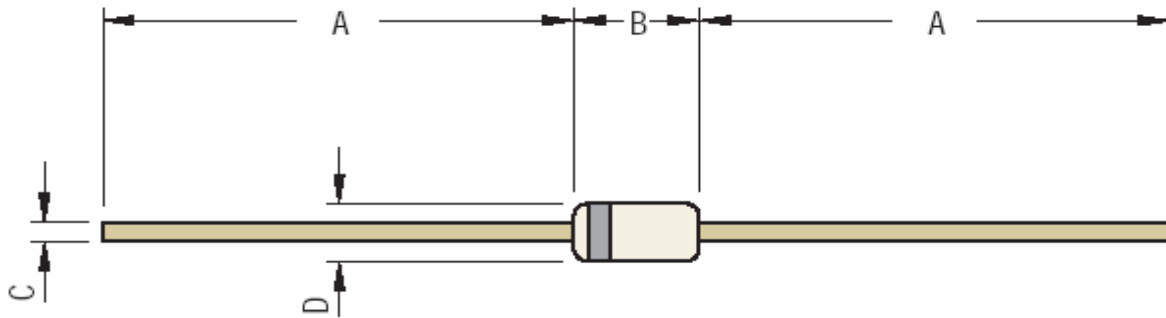
(Ratings at $T_A = 25^\circ\text{C}$ unless specified otherwise, single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%)

| DESCRIPTION | SYMBOL | VALUE | | | | | | | UNIT |
|------------------------------------------------------------------------------------------------------------|----------------|--------------|-----|-----|-----|-----|-----|------|--------------------|
| | | 6A05 | 6A1 | 6A2 | 6A4 | 6A6 | 6A8 | 6A10 | |
| Maximum Recurrent 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 0.375" (9.5mm) Lead Length at $T_A = 60^\circ\text{C}$ | $I_{(AV)}$ | 6.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 400.0 | | | | | | | A |
| Maximum Forward Voltage @ 6.0A DC and 25°C | V_F | 1.10 | | | | | | | V |
| Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$ | I_R | 10.0 1000 | | | | | | | μA |
| Typical Junction Capacitance (Note1) | C_j | 150 | | | | | | | pF |
| Typical Thermal Resistance (Note2) | R_{QJA} | 20.0 | | | | | | | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 V_{DC}
2. Thermal Resistance junction to ambient and from junction to lead at 0.375" (9.5mm) lead length PCB mounted with 1.0x1.1" (30x30mm) Copper pads

R-6 Axial Lead Plastic Package

| DIM | Min | Max |
|-----|-------|------|
| A | 25.40 | |
| B | 8.60 | 9.10 |
| C | 1.20 | 1.30 |
| D | 8.60 | 9.10 |

All Dimensions are in mm

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Customer Notes**Disclaimer**

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