

查询60S05供应商

捷多邦, 专业PCB打样工厂, 24小时

加急出货 **60S  
SERIES**

**Microsemi Corp.**

The diode experts

SCOTTSDALE, AZ

For more information call:  
(602) 941-6300

## DESCRIPTION/FEATURES

- ECONOMICAL 6 AMP  $I_O$  MOLDED DEVICE OFFERS CAPABILITY OF STUD-MOUNTED RECTIFIERS
- 400 AMPS SURGE PROVIDES HIGH IN-RUSH CURRENT CAPABILITY
- WIDE VOLTAGE RANGE AVAILABLE: 50 TO 1000 VOLTS  $V_{RRM}$

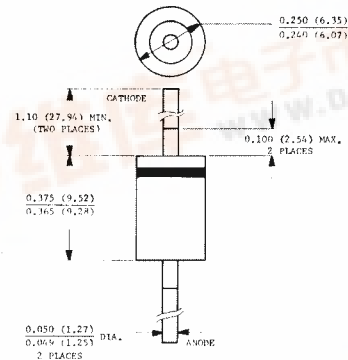
## 6 AMP AXIAL-LEAD SILICON RECTIFIER DIODES

## Major Ratings and Characteristics

|                 | 60S        |             |
|-----------------|------------|-------------|
| $I_F(AV)$       | 6          | A           |
| @ Max. $T_L$    | 95         | $^{\circ}C$ |
| $I_{FSM}$       |            |             |
| @ 50 Hz         | 382        | A           |
| @ 60 Hz         | 400        |             |
| $I^2t$          |            | $A^2s$      |
| @ 50 Hz         | 712        |             |
| @ 60 Hz         | 650        |             |
| $T_J$           | -40 to 175 | $^{\circ}C$ |
| $V_{RRM}$ Range | 50-1000    | V           |

## VOLTAGE RATINGS

| Part Number | Working $V_{RRM}$                      | $V_R$ -<br>Max. Direct Reverse Voltage |
|-------------|----------------------------------------|----------------------------------------|
|             | $T_J = -40^{\circ}C$ to $200^{\circ}C$ | $T_J = -40^{\circ}C$ to $200^{\circ}C$ |
| 60S05       | 50                                     | 50                                     |
| 60S1        | 100                                    | 100                                    |
| 60S2        | 200                                    | 200                                    |
| 60S4        | 400                                    | 400                                    |
| 60S5        | 500                                    | 500                                    |
| 60S6        | 600                                    | 600                                    |
| 60S8        | 800                                    | 800                                    |
| 60S10       | 1000                                   | 1000                                   |



All Dimensions in Inches and (Millimeters)

## ELECTRICAL SPECIFICATIONS

|                                                                   | 60S    | Units         | Conditions                                                                                                                                         |
|-------------------------------------------------------------------|--------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| $I_F(AV)$ Max. average forward current                            | 6      | A             | 1 phase operation, $180^{\circ}$ conduction, $T_L = 95^{\circ}C$ , $\ell = 9.5$ mm (0.375 in.)                                                     |
| $I_{FSM}$ Max. peak one-cycle non-repetitive surge current        | 382    | A             | Half cycle 50 Hz sine wave or 6 ms rectangular pulse                                                                                               |
|                                                                   | 400    |               | Following any rated load condition and with rated $V_{RRM}$ applied                                                                                |
|                                                                   | 454    |               | Half cycle 60 Hz sine wave or 5 ms rectangular pulse                                                                                               |
|                                                                   | 475    |               | Following any rated load condition and with $V_{RRM}$ applied following surge = 0                                                                  |
| $I^2t$ Max. $I^2t$ for fusing                                     | 712    | $A^2s$        | $t = 10$ ms With rated $V_{RRM}$ applied following surge, initial $T_J = 175^{\circ}C$                                                             |
|                                                                   | 650    |               | $t = 8.3$ ms                                                                                                                                       |
|                                                                   | 1006   |               | $t = 10$ ms With $V_{RRM} = 0$ following surge, initial $T_J = 175^{\circ}C$                                                                       |
|                                                                   | 919    |               | $t = 8.3$ ms                                                                                                                                       |
| $I^2\sqrt{t}$ Max. $I^2\sqrt{t}$ for individual device fusing (1) | 10 330 | $A^2\sqrt{s}$ | $t = 0.1$ to 10 ms, $V_{RRM} = 0$ following surge                                                                                                  |
| $V_{FM}$ Max. peak forward voltage                                | 1.00   | V             | $I_F(AV) = 6A$ (18.8A peak), $T_J = 25^{\circ}C$                                                                                                   |
| $I_{RIA(V)}$ Max. average reverse current                         |        |               |                                                                                                                                                    |
| 50 - 100V                                                         | 2.0    | mA            | Max. rated $I_F(AV)$ and $V_{RRM}$ , $T_C = 95^{\circ}C$ , length of leads to the temperature measurement points (heat sinks) = 9.5 mm (0.375 in.) |
| 200V                                                              | 1      |               |                                                                                                                                                    |
| 400-500V                                                          | 0.8    |               |                                                                                                                                                    |
| 600-1000V                                                         | 0.5    |               |                                                                                                                                                    |

## MECHANICAL CHARACTERISTICS

CASE: Molded plastic use Flame Retardant Epoxy.

TERMINALS: Axial leads, solderable per MIL-STD-202, Method 208.

POLARITY: Color band denotes cathode.

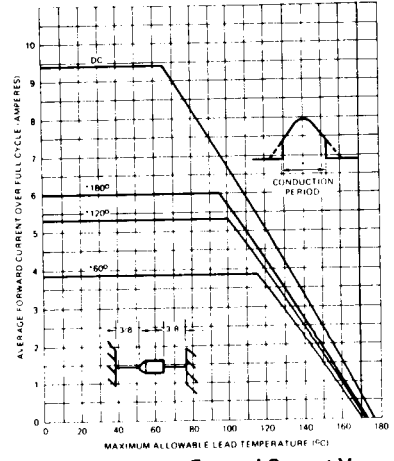
MOUNTING POSITION: Any.

## THERMAL-MECHANICAL SPECIFICATIONS

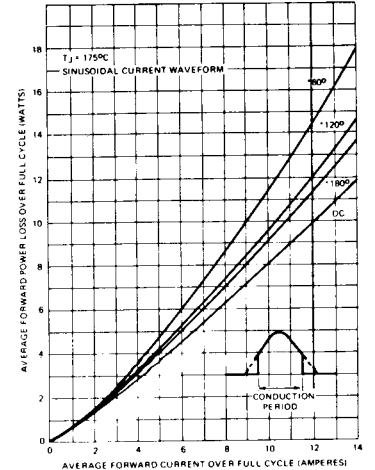
|                                                              |           |             |                                                                         |
|--------------------------------------------------------------|-----------|-------------|-------------------------------------------------------------------------|
| $T_J$ Max. operating junction temperature range              | 40 to 175 | $^{\circ}C$ |                                                                         |
| $T_{STG}$ Max. storage temperature range                     | 40 to 175 | $^{\circ}C$ |                                                                         |
| $R_{JA}$ Max. internal thermal resistance, junction-to-leads | —         |             |                                                                         |
| Length of leads (1) (1/8")                                   | 3.2 mm    | deg C/W     | DC operation, double side cooled, measured 9.5 mm (0.375 in.) from body |
| Length of leads (1) (3/8")                                   | 9.5 mm    |             |                                                                         |
| Length of leads (1) (3/4")                                   | 19 mm     |             |                                                                         |
|                                                              | 20.0      |             |                                                                         |
|                                                              |           |             | $\pm 10\%$                                                              |

# 60S Series

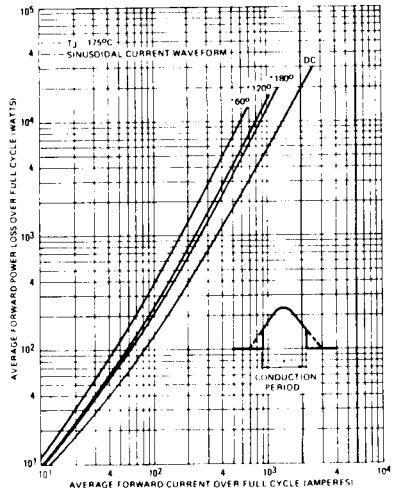
## RATING AND CHARACTERISTIC CURVES



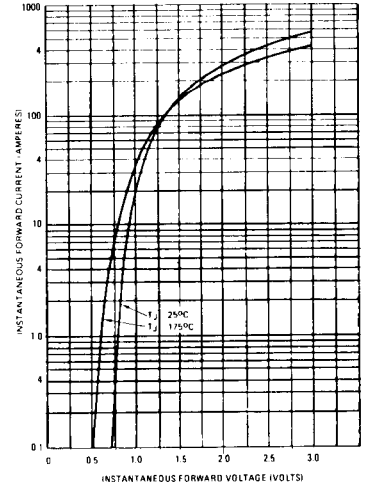
**Fig. 1 — Average Forward Current Vs. Lead Temperature at Heat Sinks**  
( $l = 3/8$  inch)



**Fig. 2 — Maximum Average Forward Power Loss Vs. Low-Level Average Forward Current**



**Fig. 3 — Maximum Average Forward Power Loss Vs. High-Level Forward Current**



**Fig. 4 — Maximum Instantaneous Forward Voltage Vs. Instantaneous Forward Current**

