



Micro Commercial Components  
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# GP02-35 THRU GP02-60

## Features

- AVALANCHE OPERATION
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOND
- BEVELED ROUND CHIP
- LOW COST

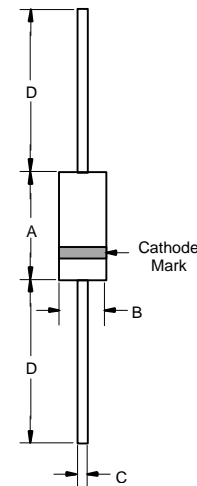
## 0.2 Amp High Voltage Silicon Rectifier 3500 - 6000 Volts

## Maximum Ratings

- Operating Junction Temperature -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance : 50°C/W Junction To Ambient (NOTE1)

| Microsemi Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------------|----------------|--|---------------------|-----------------------------|
| GP02-35                  | GP02-35        | 3500V                                  | 2450V               | 3500V                       |
| GP02-40                  | GP02-40        | 4000V                                  | 2800V               | 4000V                       |
| GP02-50                  | GP02-50        | 5000V                                  | 3500V               | 5000V                       |
| GP02-60                  | GP02-60        | 6000V                                  | 4200V               | 6000V                       |

## DO-15



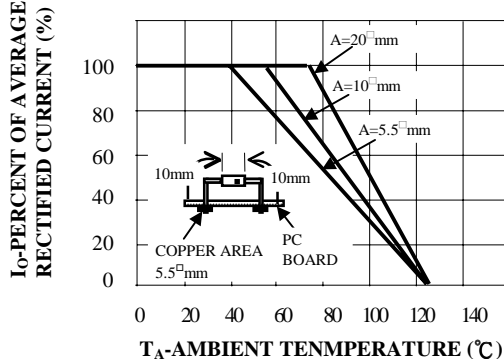
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |                                       |   |
|---|-------------|---------------------------------------|---|
| Average Forward Current   | $I_{F(AV)}$ | 0.2A                                  | $T_A = 55^\circ\text{C}$                              |
| Peak Forward Surge Current<br>GP02-35~40<br>GP02-50~60            | $I_{FSM}$   | 25 A<br>20 A                          | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage<br>GP02-35~40<br>GP02-50~60 | $V_F$       | 5.0 V<br>7.0 V                        | $I_{FM} = 0.2\text{A};$<br>$T_J = 25^\circ\text{C}$   |
| Maximum DC Reverse Current At Rated DC Blocking Voltage           | $I_R$       | 5.0 $\mu\text{A}$<br>50 $\mu\text{A}$ | $T_A = 25^\circ\text{C}$<br>$T_A = 100^\circ\text{C}$ |
| Typical Junction Capacitance<br>GP02-35~40<br>GP02-50~60          | $C_J$       | 7 pF<br>5 pF                          | Measured at<br>1.0MHz, $V_R=4.0\text{V}$              |

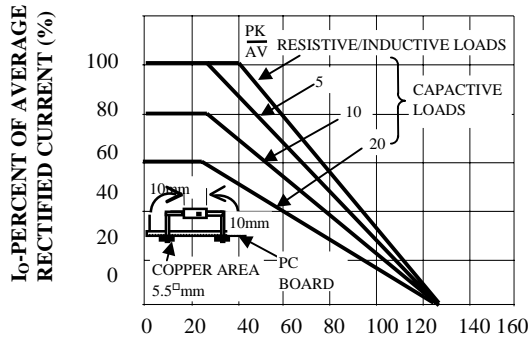
NOTE: 1. BOTH LEADS ATTACHED TO HEATSINK 20\* 20\* 1t(mm)  
 COPPER PLATE AT LEAD LENGTH 5mm

| DIM | INCHES |      | MM    |      | NOTE |
|-----|--------|------|-------|------|------|
|     | MIN    | MAX  | MIN   | MAX  |      |
| A   | .230   | .300 | 5.80  | 7.60 |      |
| B   | .104   | .140 | 2.60  | 3.60 |      |
| C   | .026   | .034 | .70   | .90  |      |
| D   | 1.000  | ---  | 25.40 | ---  |      |

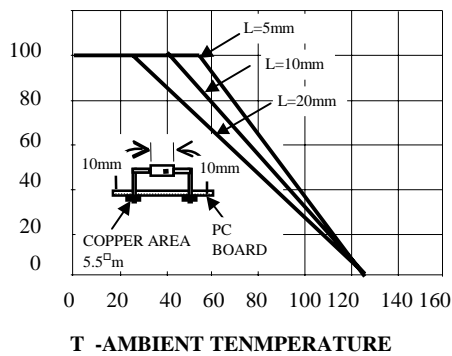
**FIG. 1 MAXIMUM CURRENT RATING  
EFFECT OF COPPER AREA.  
RESISTIVE/INDUCTIVE LOAD**



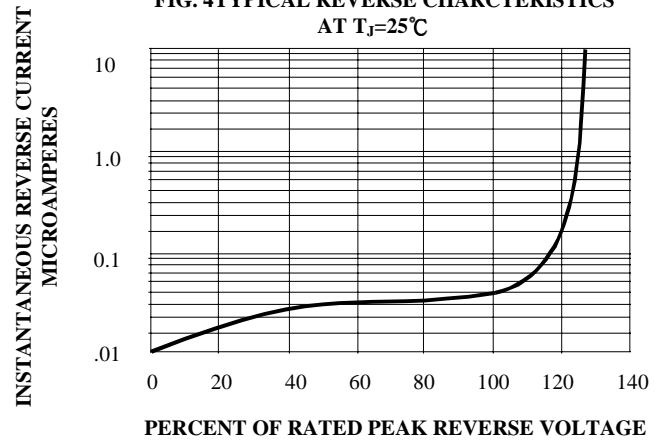
**FIG. 2 MAXIMUM CURRENT RATING  
CAPACITIVE LOAD,  
10mm LEAD LENGTHS**



**FIG. 3 MAXIMUM CURRENT RATING  
EFFECT OF COPPER AREA.  
RESISTIVE/INDUCTIVE LOAD**



**FIG. 4 TYPICAL REVERSE CHARACTERISTICS  
AT  $T_J=25^\circ\text{C}$**



GP02-35 THRU GP02-60  
RATINGS AND CHARACTERISTICS CURVES

FIG. 5 MAXIMUM FORWARD SURGE VS NUMBER OF CYCLES

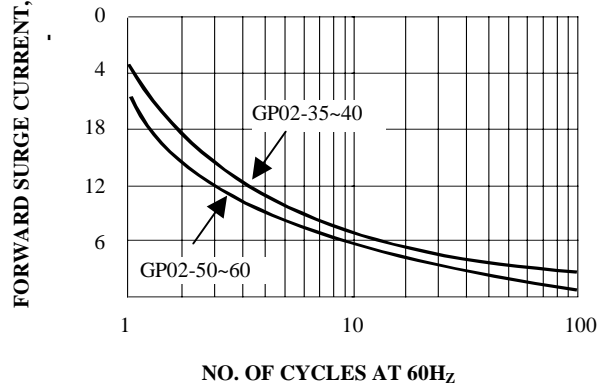


FIG. 6 TYPICAL JUNCTION CAPACITANCE

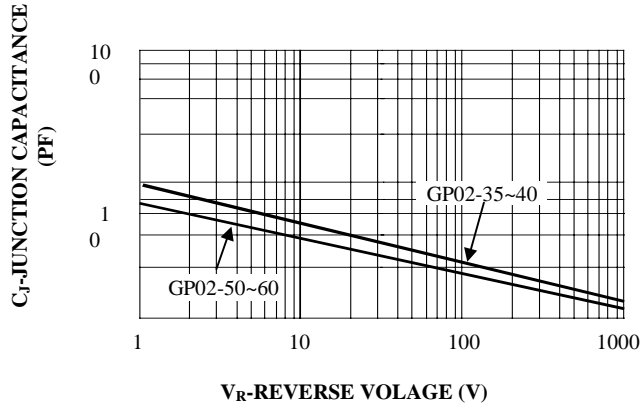


FIG. 7 TYPICAL FORWARD CHARACTERISTICS

