Micro Commercial Components

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## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Glass passivated chip
- Superfast switching time for hight efficiency
- High surge capacity and Low reverse leakage current
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1


## Maximum Ratings

- Operating Temperature: $-55^{\circ} \mathrm{C}$ to $+155^{\circ} \mathrm{C}$
- Storage Temperature: $-55^{\circ} \mathrm{C}$ to $+155^{\circ} \mathrm{C}$
- Mounting Torgue: 5 in-lbs Maximum

| MCC <br> Catalog <br> Number | Device <br> Marking | Maximum <br> Recurrent <br> Peak <br> Reverse <br> Voltage | Maximum <br> RMS <br> Voltage | Maximum <br> DC <br> Blocking <br> Voltage |
| :---: | :---: | :---: | :---: | :---: |
| MUR1605 | MUR1605 | 50 V | 35 V | 50 V |
| MUR1610 | MUR1610 | 100 V | 70 V | 100 V |
| MUR1620 | MUR1620 | 200 V | 140 V | 200 V |
| MUR1630 | MUR1630 | 300 V | 210 V | 300 V |
| MUR1640 | MUR1640 | 400 V | 280 V | 400 V |
| MUR1660 | MUR1660 | 600 V | 420 V | 600 V |

Electrical Characteristics @ 25 C Unless Otherwise Specified

| Average Forward Current | $\mathrm{I}_{\mathrm{F}(\mathrm{AV})}$ | 16.0A | $\mathrm{T}_{\mathrm{C}}=110^{\circ} \mathrm{C}$ |
| :---: | :---: | :---: | :---: |
| Peak Forward Surge Current | $\mathrm{I}_{\text {FSM }}$ | 250A | 8.3ms, half sine |
| Maximum Forward <br> Voltage Drop Per <br> $\begin{array}{ll}\text { Element } & 1605-1620 \\ & 1630-1640 \\ & 1660\end{array}$ | $V_{F}$ | $\begin{array}{r} 0.975 \mathrm{~V} \\ 1.3 \mathrm{~V} \\ 1.7 \mathrm{~V} \end{array}$ | $\begin{aligned} & \mathrm{I}_{\mathrm{FM}}=16 \mathrm{~A} \\ & \mathrm{~T}_{J}=25^{\circ} \mathrm{C} \end{aligned}$ |
| Maximum DC <br> Reverse Current At <br> Rated DC Blocking <br> Voltage | $I_{R}$ | $\begin{array}{r} 10 \mathrm{uA} \\ 250 \mathrm{uA} \end{array}$ | $\begin{aligned} & \mathrm{T}_{J}=25^{\circ} \mathrm{C} \\ & \mathrm{~T}_{J}=100^{\circ} \mathrm{C} \end{aligned}$ |
| Maximum Reverse Recovery Time | $\mathrm{T}_{\text {rr }}$ | 35ns | $\begin{aligned} & \mathrm{I}_{\mathrm{F}}=0.5 \mathrm{~A}, \mathrm{I}_{\mathrm{r}}=1.0 \mathrm{~A}, \\ & \mathrm{I}_{\mathrm{rr}}=0.25 \mathrm{~A} \end{aligned}$ |
| Typical Junction Capacitance | $\mathrm{C}_{J}$ | 65pF | Measured at $1.0 \mathrm{MHz}, \mathrm{V}_{\mathrm{R}}=4.0 \mathrm{~V}$ |

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

# MUR1605 <br> THRU MUR1660 

## 16 Amp Super Fast

 Glass Passivated Rectifier 50 to 600 Volts

| DIMENSIONS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| DIM | INCHES |  | MM |  | NOTE |
|  | MIN | MAX | MIN | MAX |  |
|  | 0.587 | 0.594 | 14.90 | 15.10 |  |
| B | ----- | 0.412 | ------ | 10.50 |  |
|  |  |  |  |  |  |
| D | 0.23 | 0.27 | 5.84 | 6.86 |  |
|  |  |  |  |  |  |
| F | 0.14 | 0.16 | 3.56 | 4.06 |  |
| G | 0.53 | 0.56 | 13.46 | 14.22 |  |
| H | 0.195 | 0.205 | 4.95 | 5.20 |  |
| I | 0.027 | 0.037 | 0.68 | 0.94 |  |
| J | 0.014 | 0.025 | 0.35 | 0.64 |  |
| K | 0.148 | 0.154 | 3.74 | 3.91 | $\varnothing$ |
| L | 0.175 | 0.185 | 4.44 | 4.70 |  |
| M | 0.045 | 0.055 | 1.14 | 1.40 |  |
| N | 0.10 | 0.11 | 0.35 | 0.64 |  |

## MUR1605 thru MUR1660

FIG.1-FORWARD CURRENT DERATING CURVE


CASE TEMPERATURE, ${ }^{\circ} \mathrm{C}$

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS


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FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS


FIG. 5 - TYPICAL JUNCTION CAPACITANCE


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## Ordering Information

| Device | Packing |
| :---: | :---: |
| (Part Number)-BP | Bulk;50pcs/Tube |


#### Abstract

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