

### Description

Dual center tap schottky rectifier designed for high frequency miniature Switched Mode Power Supplies such as adaptors and on board DC / DC converters.

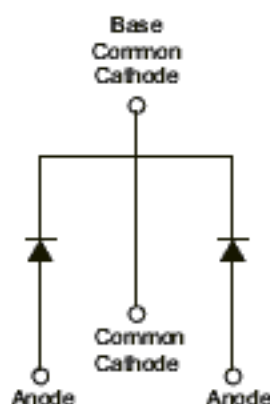
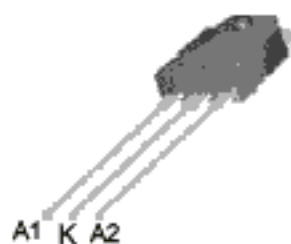
### Major Ratings and Characteristics

| Characteristics                                    | Values    | Unit             |
|----------------------------------------------------|-----------|------------------|
| $I_{F(AV)}$ Rectangular waveform                   | 2 X 20    | A                |
| $V_{RRM}$                                          | 125       | V                |
| $V_F$ @20 Apk, $T_J = 125^\circ\text{C}$ (per leg) | 0.74      | V                |
| $T_J$ range                                        | -55 ~ 175 | $^\circ\text{C}$ |

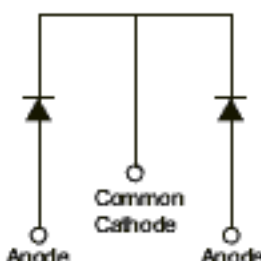
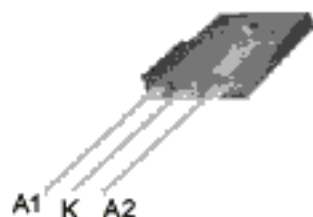
### Features

- ◆ NEGLIGIBLE SWITCHING LOSSES
- ◆ HIGH JUNCTION TEMPERATURES CAPABILITY
- ◆ GOOD TRADE OFF BETWEEN LEAKAGE CURRENT AND FORWARD VOLTAGE DROP
- ◆ LOW LEAKAGE CURRENT
- ◆ AVALANCHE RATED
- ◆ INSULATED PACKAGE: TO-3P, TO-3PF

TO-3P

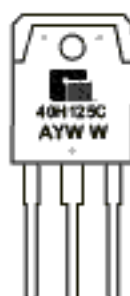


TO-3PF



## ◆ MARKING INFORMATION

TO - 3P



A : Assemble Location  
Y : Year  
WW : Work Week

## ◆ ORDERING INFORMATION

| Ordering Number | Package  | Shipping      |
|-----------------|----------|---------------|
| GMR40H125CTP3T  | TO - 3P  | 30 Unit/ Tube |
| GMR40H125CTPF3T | TO - 3PF | 30 Unit/ Tube |

\* For detail Ordering Number identification, please see last page.

## ◆ Maximum Ratings (Tc = 25°C unless otherwise noted)

| Parameter                                                                                                      | Symbol         | GMR40H125CT                                                       | Unit |
|----------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------|------|
| Maximum repetitive peak reverse voltage                                                                        | $V_{RRM}$      | 125                                                               | V    |
| Working peak reverse voltage                                                                                   | $V_{RWM}$      | 125                                                               | V    |
| Maximum DC blocking voltage                                                                                    | $V_{DC}$       | 125                                                               | V    |
| Maximum average forward rectified current<br><i>Per device<br/>Per die</i>                                     | $I_{F(AV)}$    | 40<br>20                                                          | A    |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed<br>on rated load (JEDEC Method) per leg | $I_{FSM}$      | 250                                                               | A    |
| Peak repetitive current per leg at tp = 2μs, 1KHz                                                              | $I_{RRM}$      | 2                                                                 | A    |
| Voltage rate of change(rated $V_R$ )                                                                           | $Dv/dt$        | 10,000                                                            | V/μs |
| Operating junction and storage temperature range                                                               | $T_J, T_{STG}$ | -65 to + 175                                                      | °C   |
| RMS Isolation voltage (TO-3PF) from<br>terminals to heatsink with T=1 second, RH ≤ 30%                         | $V_{ISOL}$     | 4500 <sup>(1)</sup><br>3500 <sup>(2)</sup><br>1500 <sup>(3)</sup> | V    |

◆ Thermal Characteristics ( $T_C = 25^\circ\text{C}$  unless otherwise noted)

| Parameter                          | Symbol          | TO-3P | TO-3PF | Unit               |
|------------------------------------|-----------------|-------|--------|--------------------|
| Typical thermal resistance per leg | $R_{\theta JC}$ | 0.8   | 1.25   | $^\circ\text{C/W}$ |

Notes:

- (1) Clip mounting (on case), where lead does not overlap heatsink with 0.110" offset  
 (2) Clip mounting (on case), where leads do overlap heatsink  
 (3) Screw mounting with 4-40 screw, where washer diameter is  $\leq 4.9$  mm (0.19")  
 (4) Pulse test, 300  $\mu\text{s}$  pulse width, 1% duty cycle

◆ Electrical Characteristics ( $T_C = 25^\circ\text{C}$  unless otherwise noted)

| Parameter                                                       |                                             | Symbol | Value | Unit                |
|-----------------------------------------------------------------|---------------------------------------------|--------|-------|---------------------|
| Maximum instantaneous forward voltage per leg at <sup>(4)</sup> | $I_F = 20\text{A}, T_C = 25^\circ\text{C}$  | $V_F$  | 0.85  | V                   |
|                                                                 | $I_F = 20\text{A}, T_C = 125^\circ\text{C}$ |        | 0.74  |                     |
|                                                                 | $I_F = 40\text{A}, T_C = 25^\circ\text{C}$  |        | 0.95  |                     |
|                                                                 | $I_F = 40\text{A}, T_C = 125^\circ\text{C}$ |        | 0.83  |                     |
| Maximum reverse current per leg at working peak reverse voltage | $T_J = 25^\circ\text{C}$                    | $I_R$  | 10    | $\mu\text{A}$<br>mA |
|                                                                 | $T_J = 125^\circ\text{C}$                   |        | 10    |                     |

◆ Typical Performance Characteristics

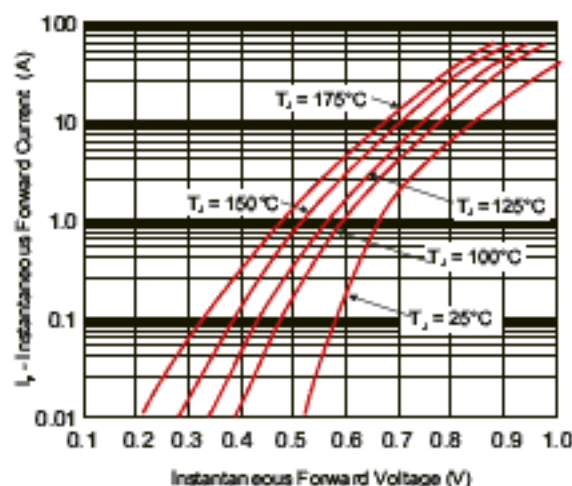
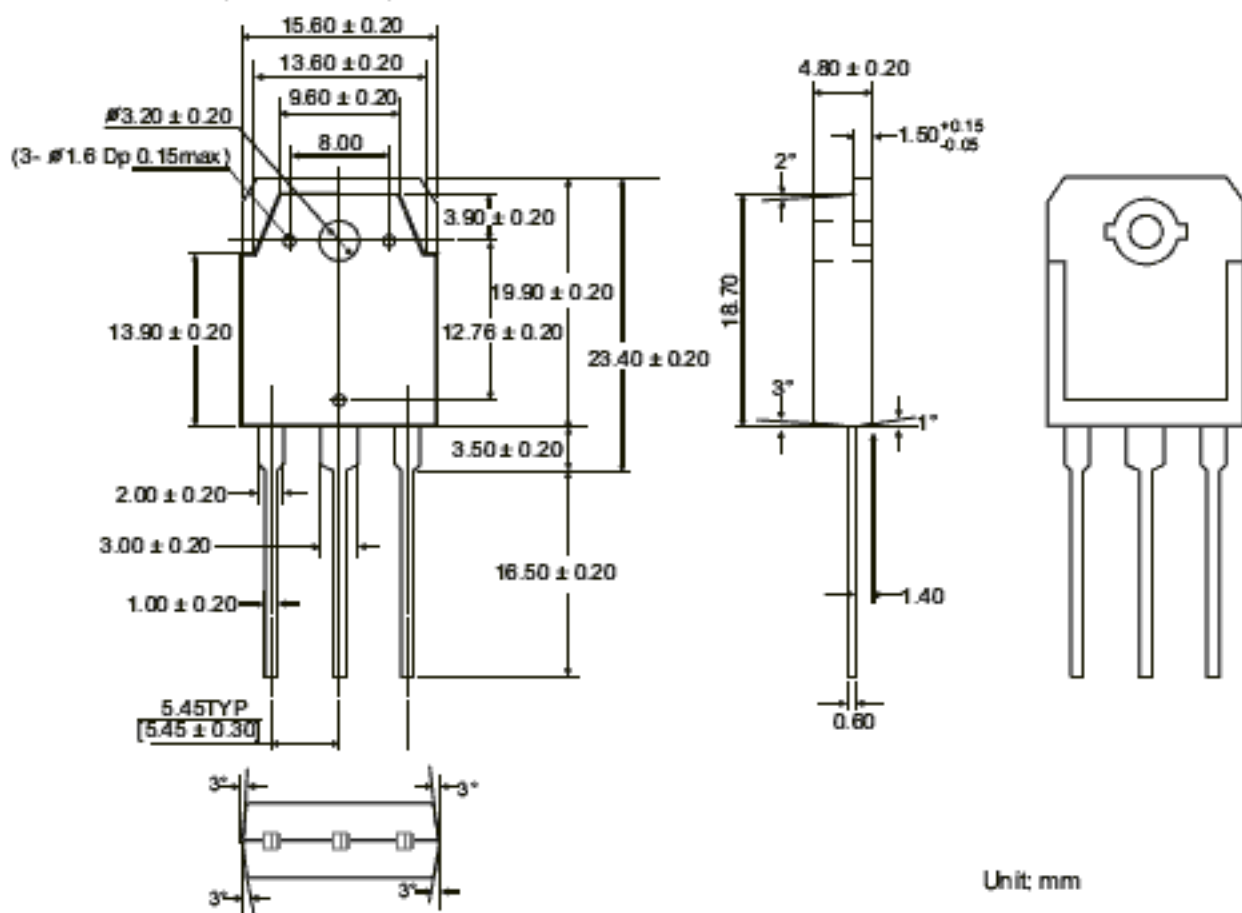
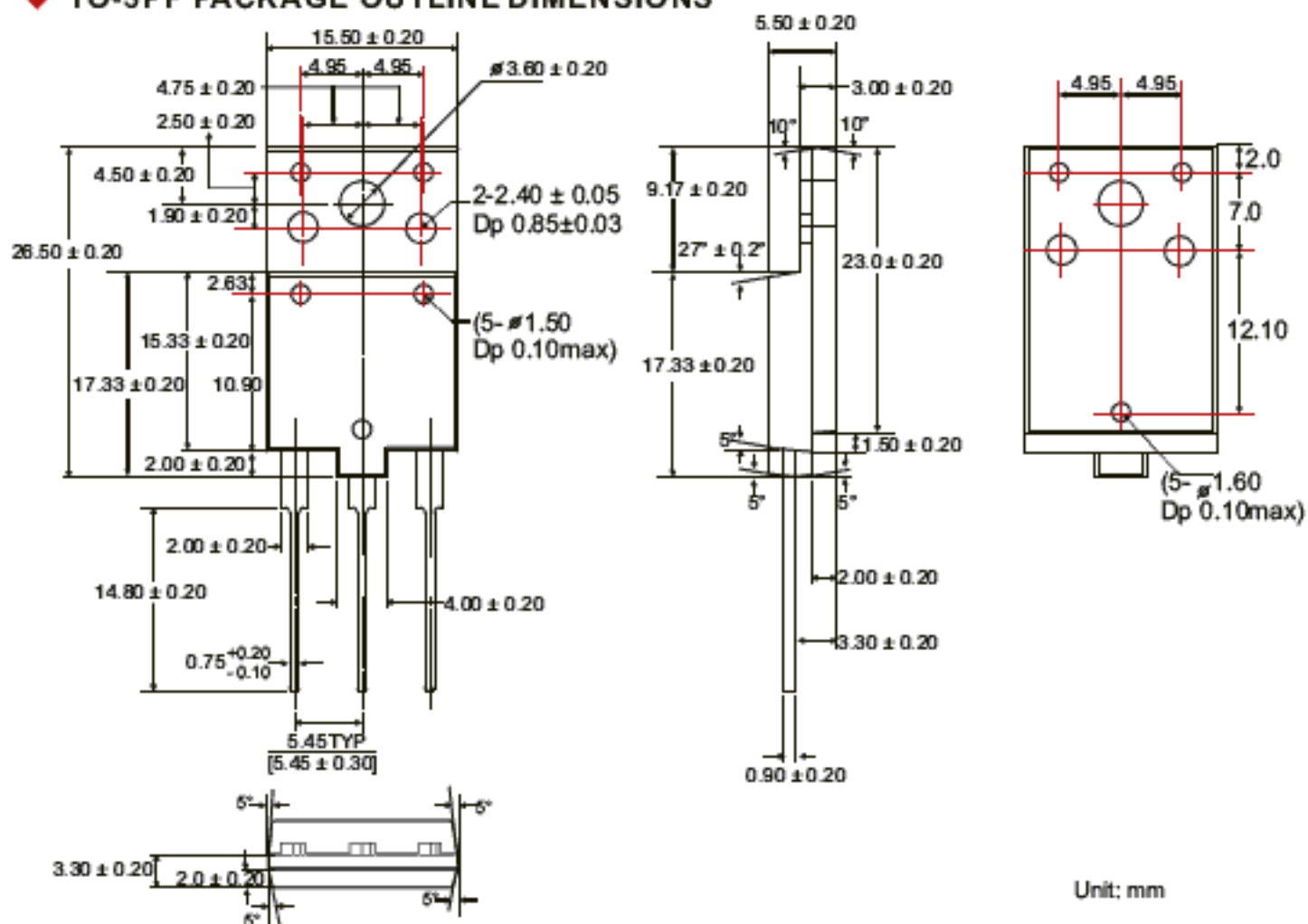


Figure 1. Typical Instantaneous Forward Characteristics

## ◆ TO-3P PACKAGE OUTLINE DIMENSIONS



## ◆ TO-3PF PACKAGE OUTLINE DIMENSIONS



## ◆ ORDERING NUMBER

