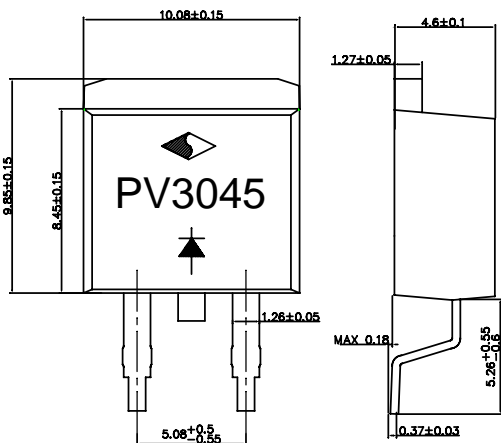


# PV3045

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 45 Volts Forward Current - 30.0 Amperes

### T0-263



Dimensions in millimeters

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
260°C,0.25"(6.35mm) from case for 10 seconds

### MECHANICAL DATA

Case: T0-263 molded plastic body  
 Terminals: Leads solderable per MIL-STD-750, Method 2026  
 Polarity: As marked  
 Mounting Position: Any  
 Weight:1.426 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

|  | SYMBOLS         | PV3045      | UNITS         |
|--|-----------------|-------------|---------------|
| Maximum repetitive peak reverse voltage  | $V_{RRM}$       | 45          | VOLTS         |
| Maximum RMS voltage  | $V_{RMS}$       | 32          | VOLTS         |
| Maximum DC blocking voltage  | $V_{DC}$        | 45          | VOLTS         |
| Maximum average forward rectified current<br>(see fig.1)   | $I_{(AV)}$      | 30.0        | Amps          |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on<br>rated load (JEDEC Method) | $I_{FSM}$       | 300         | Amps          |
| Maximum instantaneous forward voltage at 30A   | $V_F$           | 0.55        | Volts         |
| Maximum DC reverse current<br>at rated DC blocking voltage   | $I_R$           | 0.5         | mA            |
| $T_A=25^{\circ}C$<br>$T_A=100^{\circ}C$  |                 | 50          |               |
| Rating for Fusing $1ms \leq t < 8.3ms$   | $I^2 t$         | 373         | $A^2s$        |
| Typical thermal resistance (NOTE 1)  | $R_{\theta JC}$ | 2.0         | $^{\circ}C/W$ |
| Operating junction temperature range   | $T_J$           | -55 to +200 | $^{\circ}C$   |
| Storage temperature range  | $T_{STG}$       | -55 to +200 | $^{\circ}C$   |

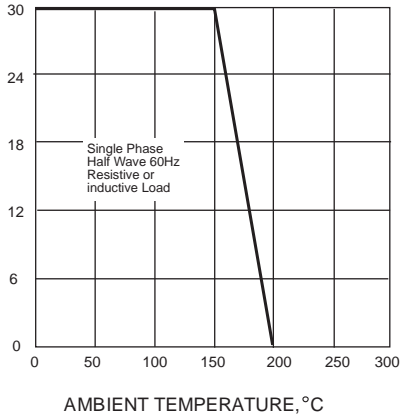
#### Note:

1.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

# RATINGS AND CHARACTERISTIC CURVES PV3045

AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,  
AMPERES

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

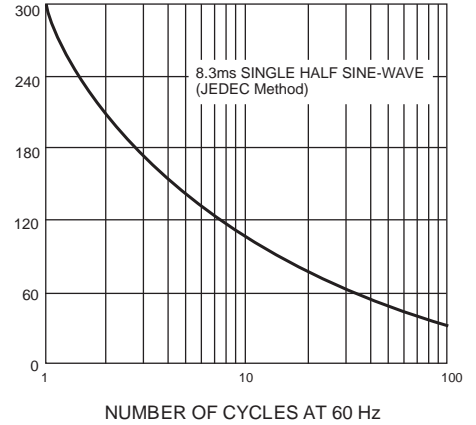
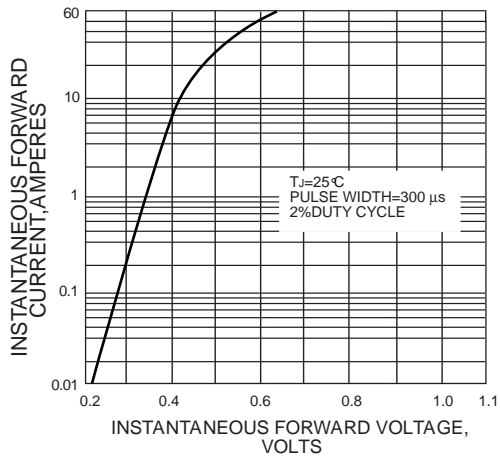


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

