



# PV2045

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 45 Volts Forward Current - 20.0 Amperes

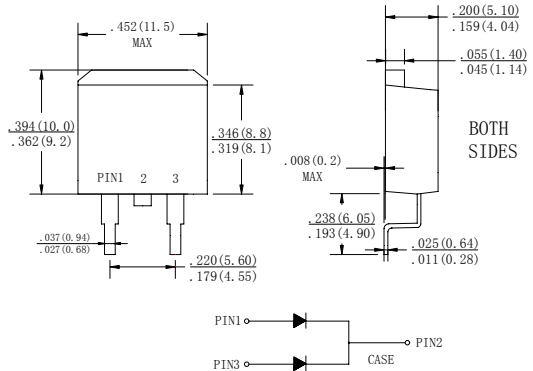
### FEATURES

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

### TO-263



Dimensions in inches and (millimeters)

### 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	PV2045	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 (see fig.1)	$I_{(AV)}$	20.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	300	Amps
Maximum instantaneous forward voltage at 20A	$V_F$	0.55	Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	0.5 50	mA
Rating for Fusing $1\text{ms} \leq t < 8.3\text{ms}$	$I^2 t$	511	$\text{A}^2\text{s}$
Typical thermal resistance (NOTE 1)	$R_{\theta JC}$	1.5	$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to +200	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

#### Note:

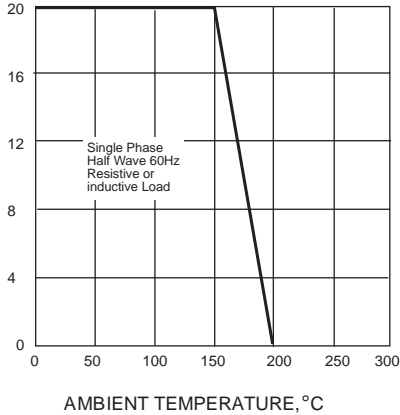
1. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas



## RATINGS AND CHARACTERISTIC CURVES PV2045

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

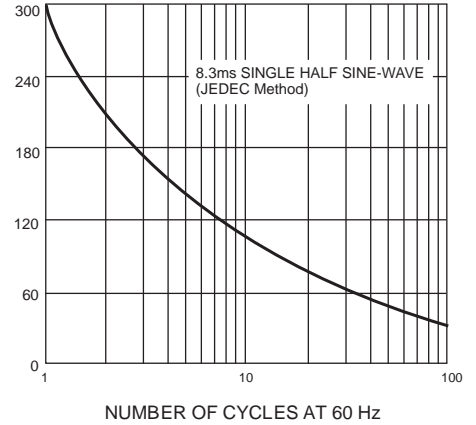
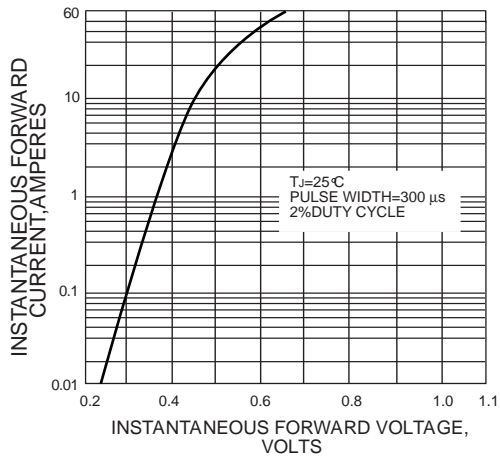


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,  
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

