



# BPZ5024 THRU BPZ5040

50A, 20-24V, 28-32V, 38-42V  
AVALANCHE PRESS-FIT BOSCH DIODES

## FEATURES

50 Ampere Operation At  $T_L=125^\circ\text{C}$  With No Thermal Runaway.

Low forward voltage drop

Low leakage current

High surge current capability

## MECHANICAL DATA

Case: Copper BP

Terminals: Plated terminals, solderable per

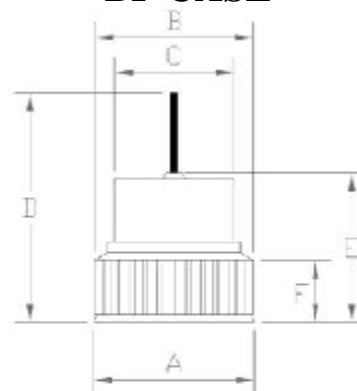
MIL-STD-202, method 208.

.Polarity : By White or Brown Color Epoxy. Positive

By BLACK or Blue Color Epoxy. Negative

.Weight: 6.8grams

## BP CASE



$A=\varnothing 13.0 \pm 0.2\text{mm}$      $B=\varnothing 12.8 \pm 0.04\text{mm}$   
 $C=\varnothing 9.98 \pm 0.03\text{mm}$      $D=30.0\text{mm min}$   
 $E=11.0\text{mm max}$      $F=4.5 \pm 0.2\text{mm}$

Dimension in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at  $25^\circ\text{C}$  Ambient temp. Unless otherwise specified. Single phase, half sine wave, 60HZ, resistive or inductive load.

For capacitive load, derate current by 20%

	SYMBOL	BPZ5024	BPZ5028	BPZ5040	UNITS
Maximum Current Peak Reverse Voltage	VRRM	16	20	34	Volts
Working Peak Reverse Voltage	VRWM	16	20	34	Volts
Maximum DC Blocking Voltage	VDC	16	20	34	Volts
Breakdown voltage Min@ $I_{BR}=100\text{mA}/T_A=25^\circ\text{C}$	VBRL	20	24	38	Volts
Breakdown voltage Max@ $I_{BR}=100\text{mA}/T_A=25^\circ\text{C}$	VBRH	24	32	42	Volts
$T_L=125^\circ\text{C}$ Maximum Average Forward Rectified Current	$I(AV)$	50			Amps
Peak Forward Surge Current 8.3ms Single Sine-wave on Rated Load (JEDEC Method)	IFSM	500			Amps
Maximum Instantaneous Forward Voltage Drop at 50A DC	VF	1.0			Volts
$T_A=25^\circ\text{C}$ Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	0.2			$\mu\text{A}$
$I_F=10\text{mA}$ Forward Voltage Temperature Coefficient	VFTS	2			$\text{mV}/^\circ\text{C}$
Operating AND Storage Temperature Range	TSTG/ $T_J$	-55 to +150			$^\circ\text{C}$

NOTE: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

## RATING AND CHARACTERISTIC CURVES BPZ5024 THRU BPZ5040

FIG. 1 – MAXIMUM AVERAGE FORWARD CURRENT DERATING

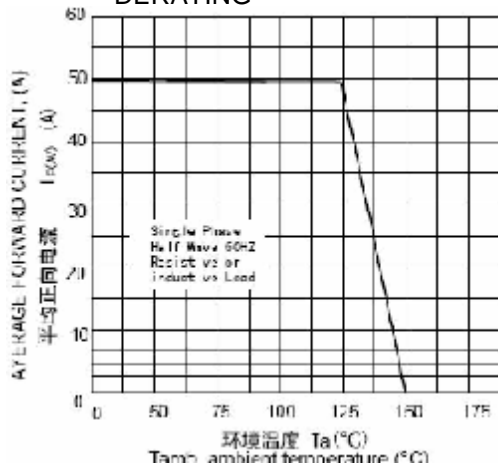


FIG. 2 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

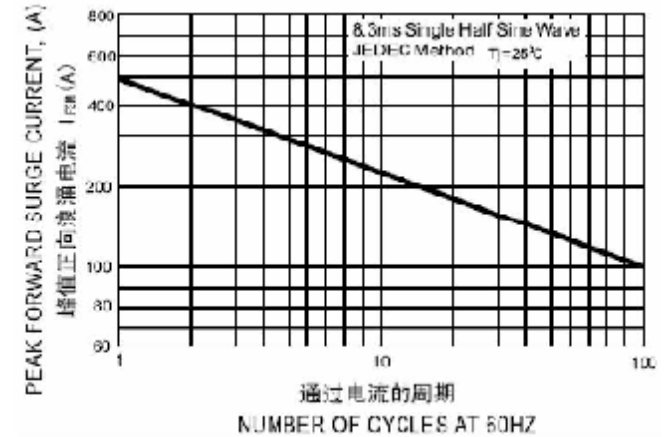


FIG. 3 – PULSE WAVEFORM

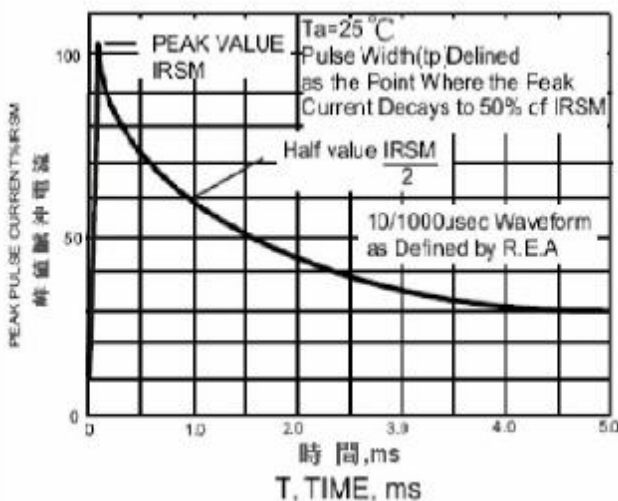


FIG. 4 – TYPICAL FORWARD CHARACTERISTICS

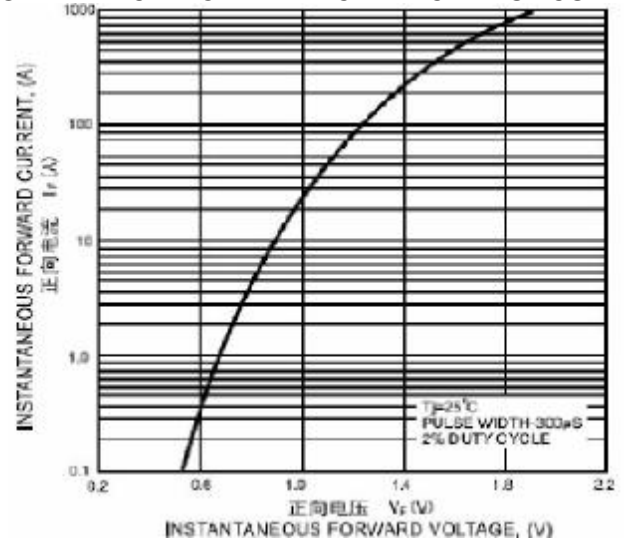


FIG. 5 – PULSE RATING CURVE

