

GLASS PASSIVATED RECTIFIERS

VOLTAGE RANGE: 500 --- 600 V
CURRENT: 4.0 A

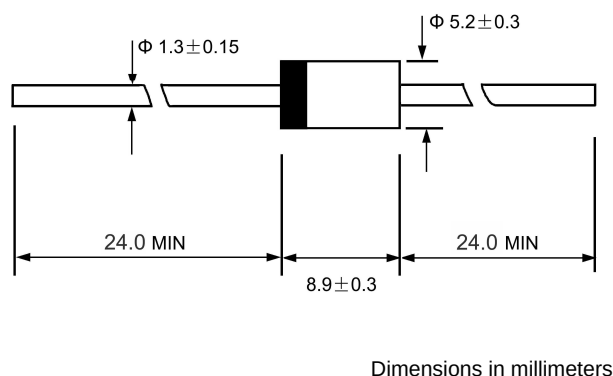
FEATURES

- ◇ Low cost
- ◇ Glass passivated junction chips
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol, Isopropanol and similar solvents

MECHANICAL DATA

- ◇ Case: JEDEC DO-27, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL - STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15 grams
- ◇ Mounting position: Any

DO - 27



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 50 Hz, resistive or inductive load. For capacitive load, derate by 20%.

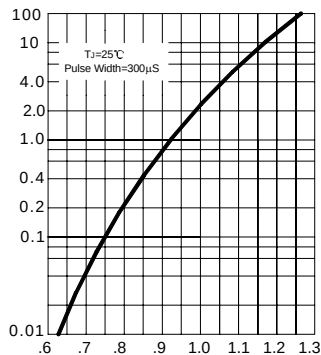
		BYW28 -500	BYW28 -600	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	500	600	V
Maximum RMS voltage	V_{RMS}	350	420	V
Maximum DC blocking voltage	V_{DC}	500	600	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	4.0		A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	170		A
Maximum instantaneous forward voltage @ $I_F=3.5\text{A}$	V_F	1.15		V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 150		μA
Typical junction capacitance (Note1)	C_J	275		pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	70		$^\circ\text{C/W}$
Operating junction temperature range	T_J	- 55 ----- + 175		$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 ----- + 175		$^\circ\text{C}$

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 0V DC.
2. Thermal resistance from junction to ambient.

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FIG.1 – TYPICAL FORWARD CHARACTERISTIC

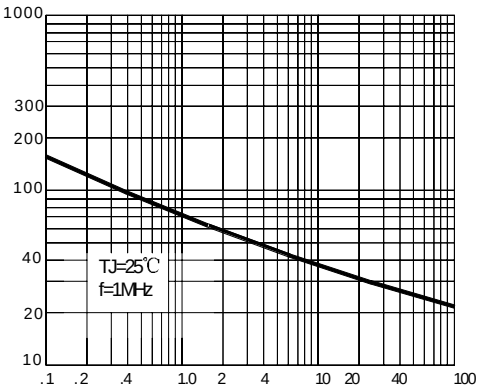
INSTANTANEOUS FORWARD CURRENT
AMPERES



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.2 – TYPICAL JUNCTION CAPACITANCE

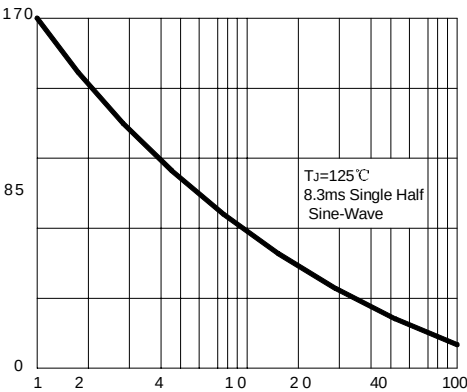
JUNCTION CAPACITANCE, pF



REVERSE VOLTAGE, VOLTS

FIG.3 – PEAK FORWARD SURGE CURRENT

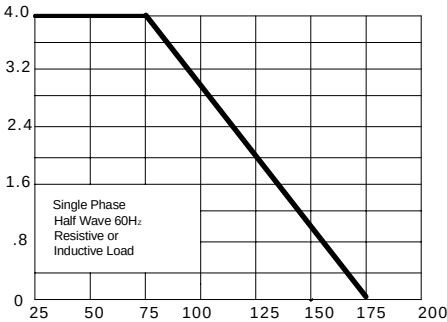
PEAK FORWARD SURGE CURRENT
AMPERES



NUMBER OF CYCLES AT 60Hz

FIG.4 – FORWARD DERATING CURVE

AVERAGE FORWARD CURRENT
AMPERES



AMBIENNT TEMPERATURE, $^\circ\text{C}$