

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 200 V

CURRENT: 1.5 A

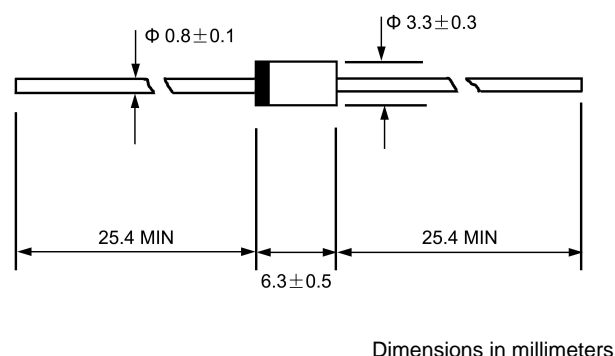
FEATURES

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

MECHANICAL DATA

- ◇ Case: JEDEC DO-15, molded plastic
- ◇ Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces, 0.39 grams
- ◇ Mounting: Any

DO - 15



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

		BYW100-200	UNITS
Maximum peak repetitive reverse voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC blocking voltage	V_{DC}	200	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=95^\circ\text{C}$ =0.5	$I_{F(AV)}$	1.5	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	50.0	A
Maximum instantaneous forward voltage @ 4.5A, $T_J=25^\circ\text{C}$ @ 1.5 A, $T_J=100^\circ\text{C}$	V_F	1.2 0.85	V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	10.0 500.0	μA
Maximum reverse recovery time (Note1)	t_{rr}	35	ns
Typical junction capacitance (Note2)	C_J	62	pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	45	$^\circ\text{C/W}$
Operating junction temperature range	T_J	- 55 ----- + 150	$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 ----- + 150	$^\circ\text{C}$

NOTE: 1. Measured with $I_F=1\text{A}$, $V_R=30\text{V}$, $dI_F/dt=-50\text{A}/\mu\text{S}$.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient.

FIG.1- PEAK FORWARD SURGE CURRENT

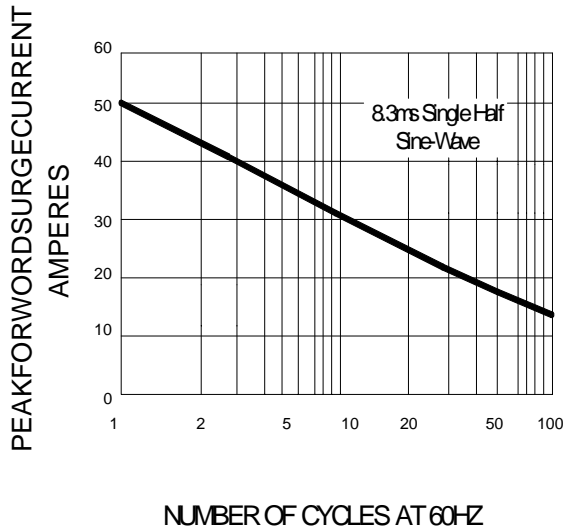


FIG.2 - TYPICAL FORWARD CHARACTERISTIC

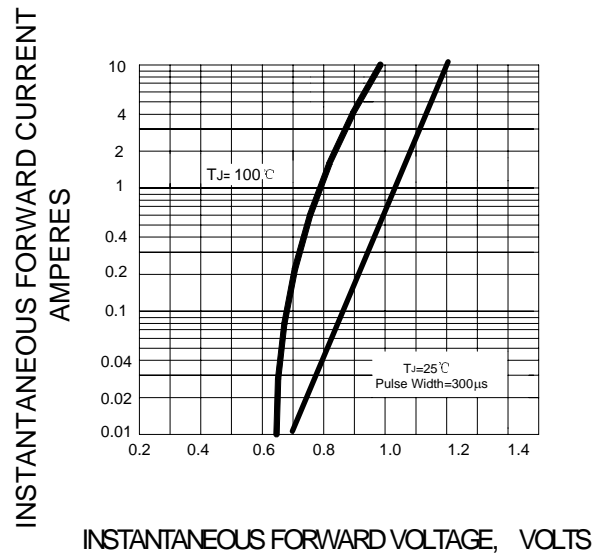


FIG.3 - FORWARD DERATING CURVE

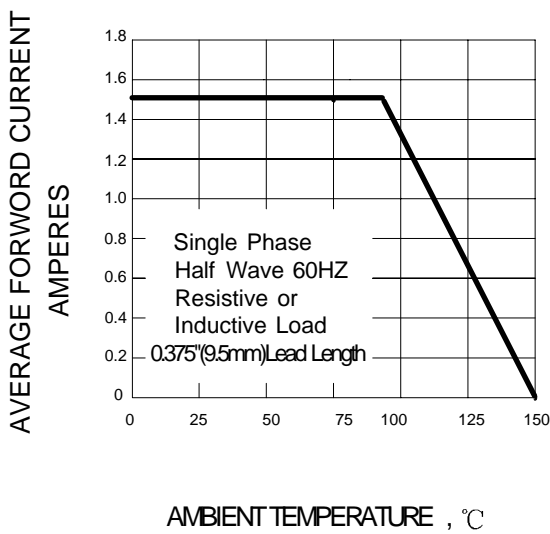


FIG.4- TYPICAL JUNCTION CAPACITANCE

