

## SUPER FAST RECTIFIERS

VOLTAGE RANGE: 200 V  
CURRENT: 1.5 A

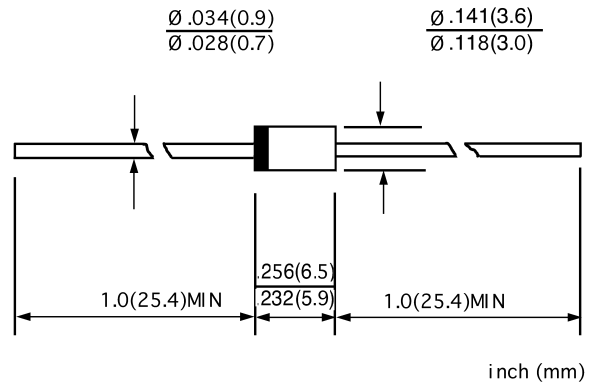
### FEATURES

- ◇ 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, @ $T_A=95^\circ C$ =0.5	$I_{F(AV)}$	1.5	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	50.0	A
Maximum instantaneous forward voltage @ 4.5A, $T_J=25^\circ C$ @ 1.5 A, $T_J=100^\circ C$	$V_F$	1.2 0.85	V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	10.0 500.0	$\mu A$
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	$^\circ C/W$
Operating junction temperature range	$T_J$	- 55 ----- + 150	$^\circ C$
Storage temperature range	$T_{STG}$	- 55 ----- + 150	$^\circ C$

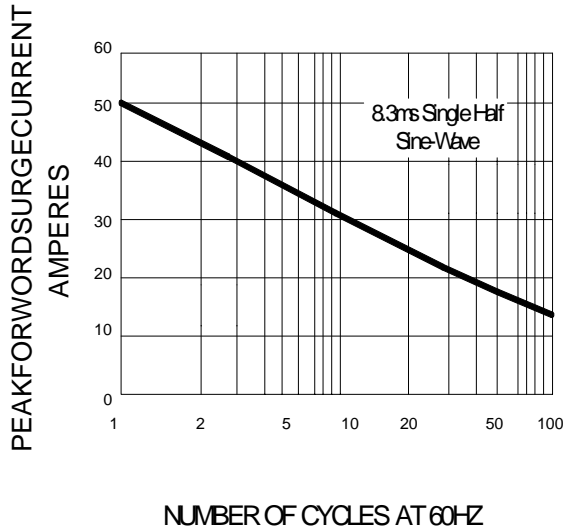
NOTE: 1. Measured with  $I_F=1A$ ,  $V_R=30V$ ,  $dI_F/dt=-50A/\mu S$ .

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

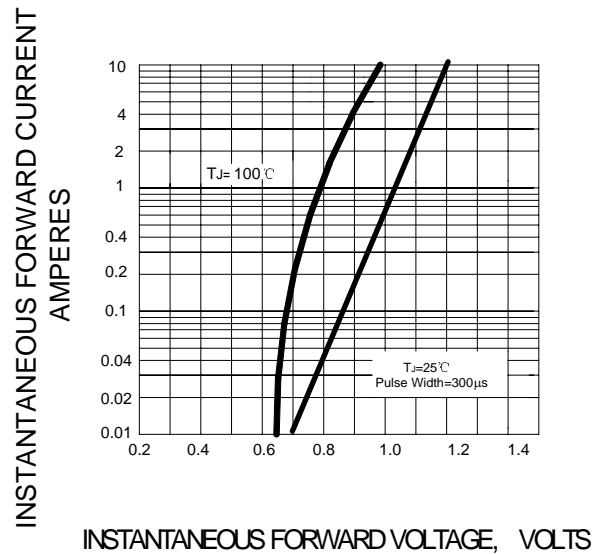
3. Thermal resistance from junction to ambient.

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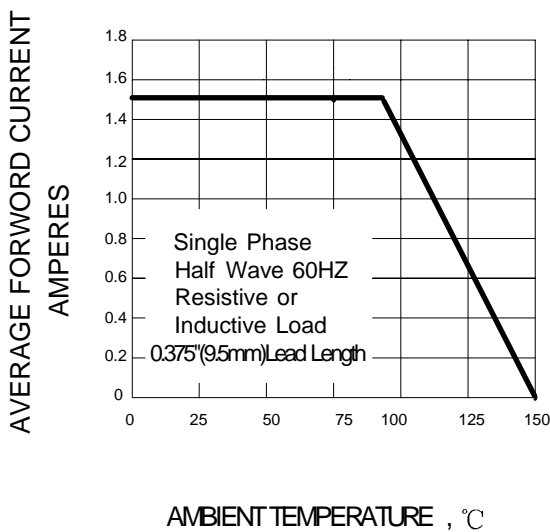
**FIG.1- PEAK FORWARD SURGE CURRENT**



**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 – FORWARD DERATING CURVE**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**

