

FAST RECOVERY RECTIFIER

VOLTAGE RANGE: 200 --- 600 V

CURRENT: 3.0 A

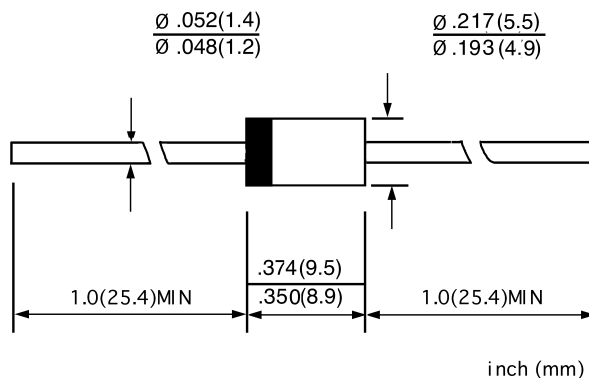
FEATURES

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

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, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		BYW72	BYW73	BYW74	BYW75	BYW76	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	200	300	400	500	600	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	3.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J = 125^\circ\text{C}$	I_{FSM}	200.0					A
Maximum instantaneous forward voltage @ 3.0 A	V_F	1.1					V
Maximum reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$	I_R	10.0 100.0					μA
Maximum reverse recovery time (Note1)	t_{rr}	200					ns
Typical junction capacitance (Note2)	C_J	32					pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	22					$^\circ\text{C/W}$
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 $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $t_{rr} = 0.25\text{A}$.

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 –MAX. THERMAL RESISTANCE VS. LEAD LENGTH

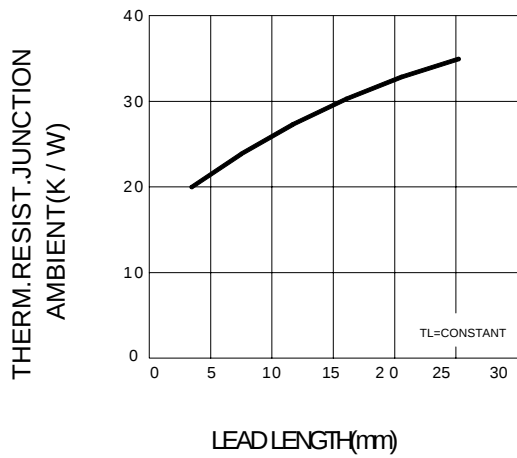


FIG.2 –TYPICAL FORWARD CHARACTERISTIC

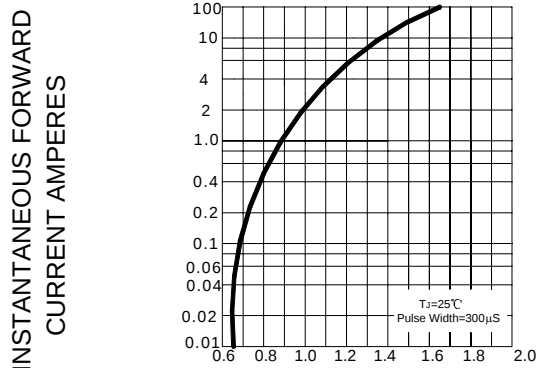


FIG.3 –FORWARD DERATING CURVE

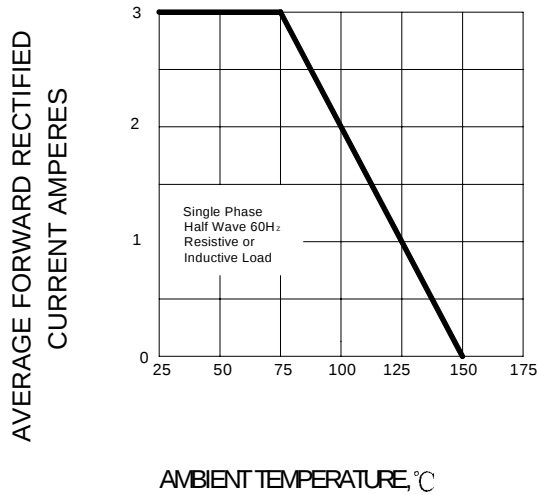


FIG.4 –PEAK FORWARD SURGE CURRENT

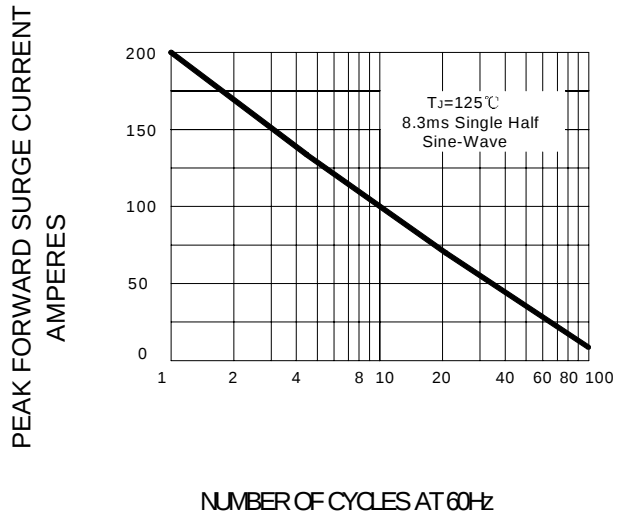


FIG.5– MAX.REVERSE POWER DISSIPATION VS. JUNCTION TEMPERATURE

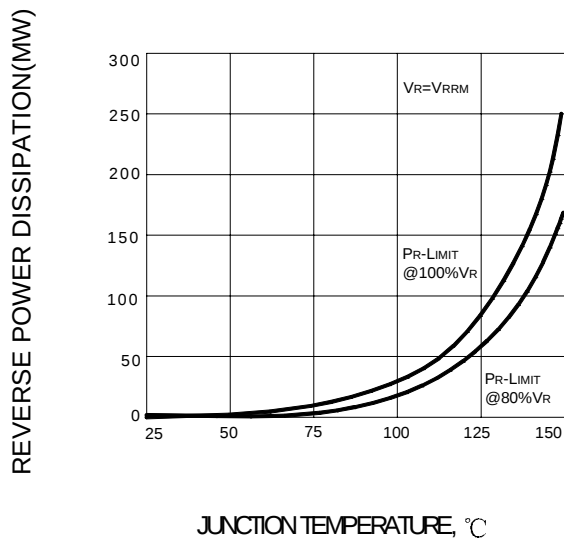


FIG.6–TYPICAL JUNCTION CAPACITANCE

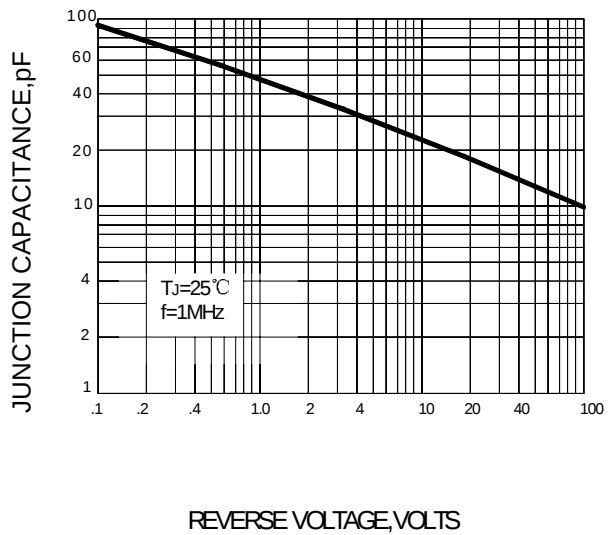


FIG.8 –THERMAL RESPONSE

