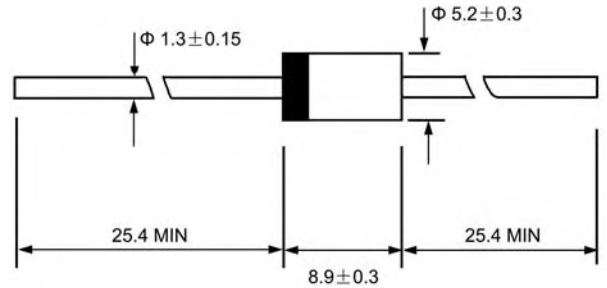


VOLTAGE RANGE: 50 --- 1000 V

CURRENT: 3.0 A



DO - 27



Dimensions in millimeters

Features

- ◇ Fast recovery times
- ◇ UI 90V0 flame retardant epoxy molding compound
- ◇ Diffused junction
- ◇ Low cost
- ◇ High surge current capability
- ◇ Bevel round chip, avalanche operation

Mechanical Data

- ◇ Case: JEDEC DO-27, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15 grams
- ◇ Mounting position: Any

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%.

		BYT 56A	BYT 56B	BYT 56D	BYT 56G	BYT 56J	BYT 56K	BYT 56M	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	3.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	I_{FSM}	150.0							A
Maximum instantaneous forward voltage @ 3.0A	V_F	1.4							V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	I_R	10.0 150.0							μA
Maximum reverse recovery time (Note1)	t_{rr}	100							ns
Typical junction capacitance (Note2)	C_J	75				50			pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	30							$^\circ C/W$
Operating junction temperature range	T_J	- 55 ---- + 150							$^\circ C$
Storage temperature range	T_{STG}	- 55 ---- + 150							$^\circ C$

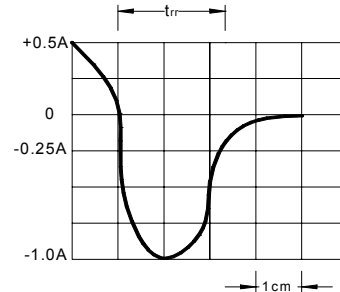
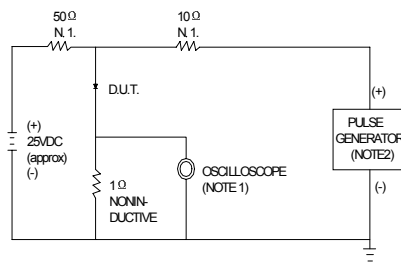
NOTE: 1. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.

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

3. Thermal resistance from junction to ambient.

Ratings AND Characteristic Curves

FIG.1 –TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. RISE TIME=7ns MAX.INPUT IMPEDANCE=1MΩ.22pF
 2. RISE TIME=10ns MAX.SOURCE IMPEDANCE=50Ω

SET TIME BASE FOR 20/30 ns/cm

FIG.2 – TYPICAL JUNCTION CAPTANCE

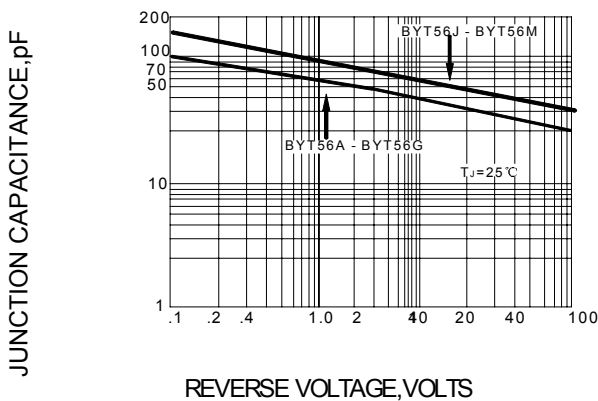


FIG.3 –PEAK FORWARD SURGE CURRENT

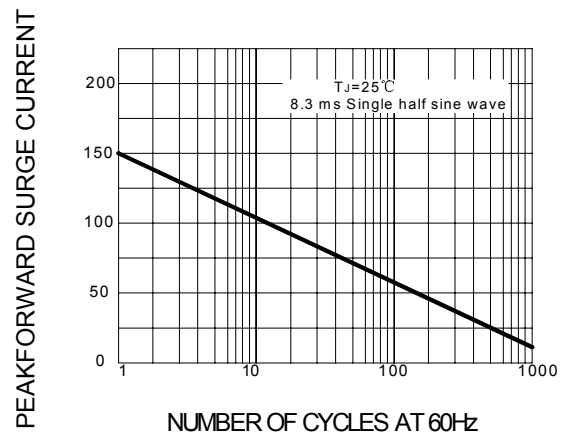


FIG.4 – TYPICAL FORWARD CURRENT DERATING CURVE

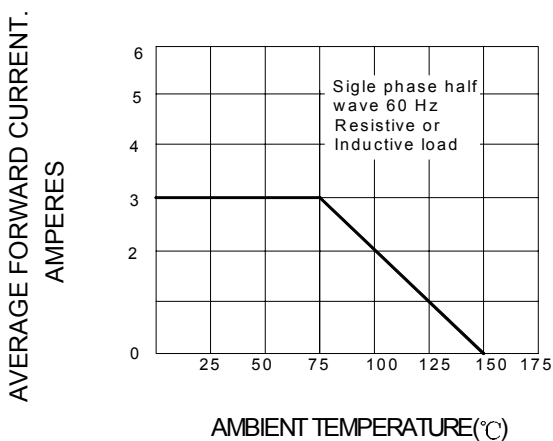


FIG.5 –TYPICAL FORWARD CHARACTERISTIC

