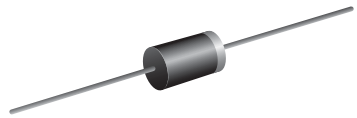
BYT52A - BYT52M

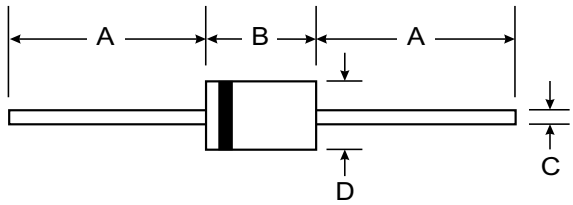
FAST RECOVERY RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V
CURRENT: 1.4 A



Features

- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, Alcohol,Isopropanol and similar solvents



DO-15		
Dim	**Min**	**Max**
A	25.40	—
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions in mm		

Mechanical Data

- Case : DO-15 Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.465 gram

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

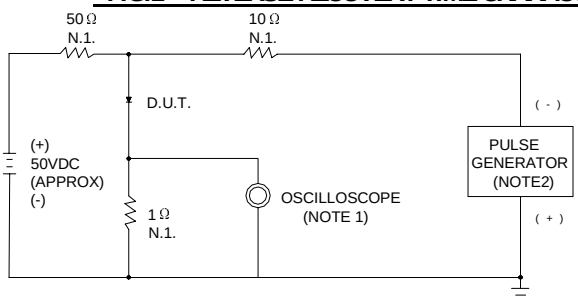
Characteristic	Symbol	BYT52A	BYT52B	BYT52D	BYT52G	BYT52J	BYT52K	BYT52M	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	10	200	400	600	800	1000	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.4							A
Peak forw ard surge current 10ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	50.0							A
Maximum instantaneous forw ard voltage @ 1.0A	V_F	1.3							V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	5.0 100.0							μA
Maximum reverse recovery time (Note1)	t_{rr}	200							ns
Typical junction capacitance (Note2)	C_J	18							pF
Typical thermal resistance (Note3)	R_{qJA}	45							℃/W
Operating junction temperature range	T_J	-55 ---- + 150							℃
Storage temperature range	T_{STG}	-55 ---- + 150							℃

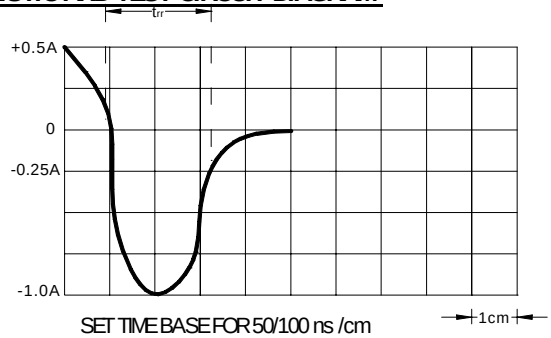
NOTE:1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

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

3. Thermal resistance from junction to ambient.

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





NOTES:1.RISE TIME =7ns MAX. INPUT IMPEDANCE=1MΩ.22pF
2.RISE TIME=10ns MAX. SOURCE IMPEDANCE=5OΩ

SET TIME BASE FOR 50/100 ns /cm

FIG.2 –FORWARD DERATING CURVE

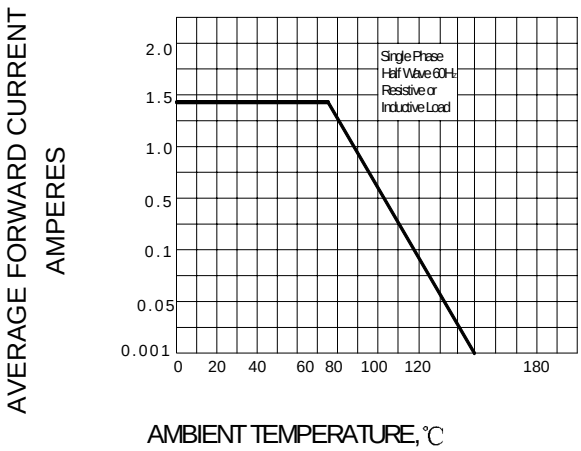


FIG.3 –PEAK FORWARD SURGE CURRENT

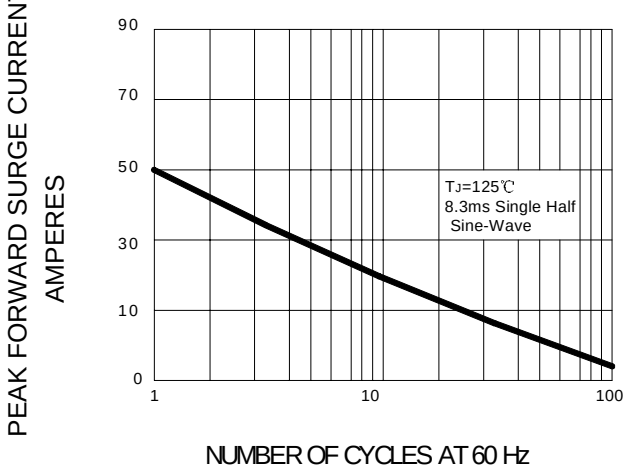


FIG.4–TYPICAL FORWARD CHARACTERISTIC

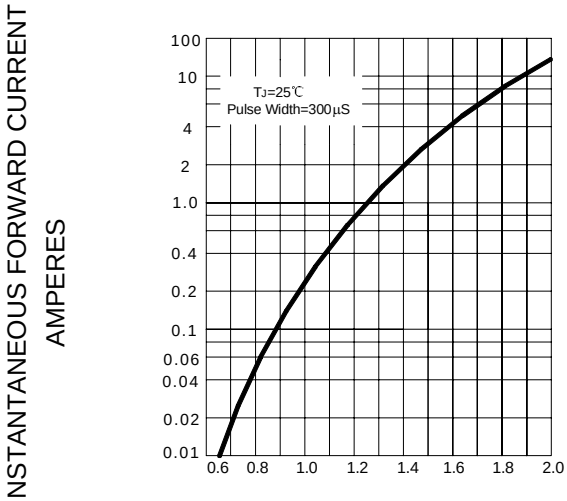
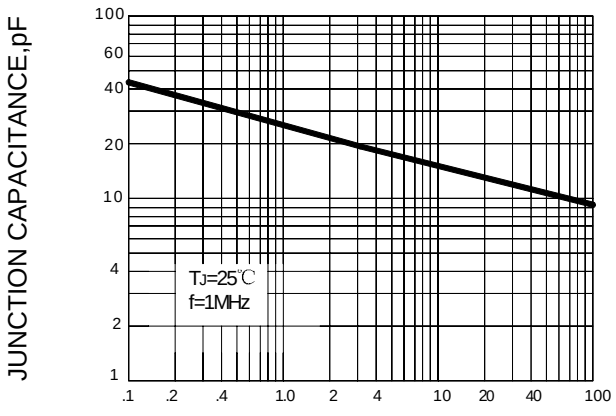



FIG.5–TYPICAL JUNCTION CAPACITANCE