

BYT54A-BYT54M

High Efficiency Rectifiers

VOLTAGE RANGE: 50 --- 1000 V

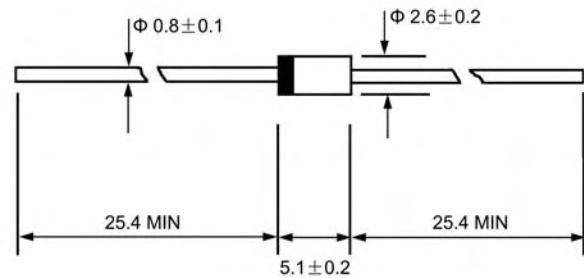
CURRENT: 1.25 A



DO - 41

Features

- ◇ Fast recovery times
- ◇ The plastic material carries U/L recognition 94V-0
- ◇ Glass passivated junction
- ◇ Low cost
- ◇ High surge current capability



Dimensions in millimeters

Mechanical Data

- ◇ Case: JEDEC DO-- 41, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.012 ounces, 0.34 grams
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

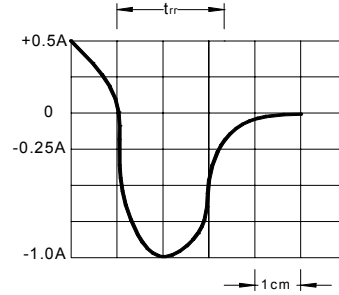
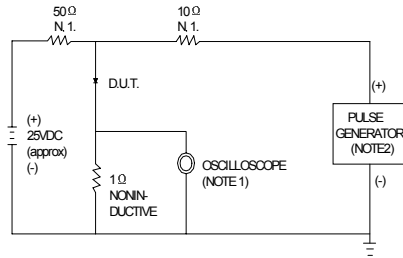
		BYT 54A	BYT 54B	BYT 54D	BYT 54G	BYT 54J	BYT 54K	BYT 54M	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 10mm lead length, @ $T_A=75^\circ\text{C}$	$I_{F(AV)}$	1.25							A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	30							A
Maximum instantaneous forward voltage @ 1.0 A	V_F	1.5							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 150							μA
Maximum reverse recovery time (Note1)	t_{rr}	100							ns
Typical thermal resistance (Note2)	$R_{\theta JA}$	45							k/W
Operating junction temperature range	T_J	- 55 ---- + 175							°C
Storage temperature range	T_{STG}	- 55 ---- + 175							°C

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

2. 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 40 ns/cm

FIG.2 – TYPICAL REVERSE CHARACTERISTICS

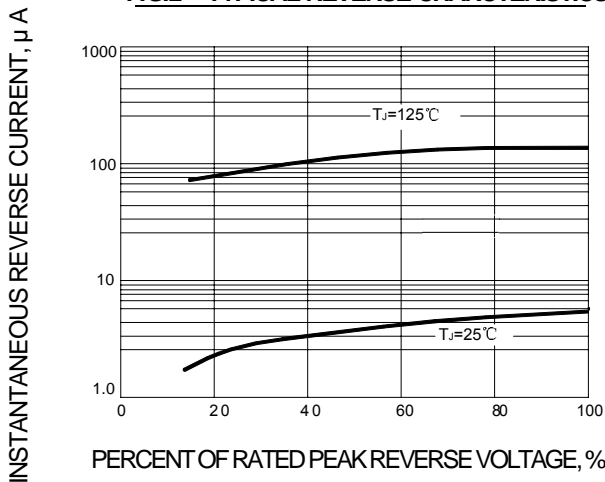


FIG.3 –PEAK FORWARD SURGE CURRENT

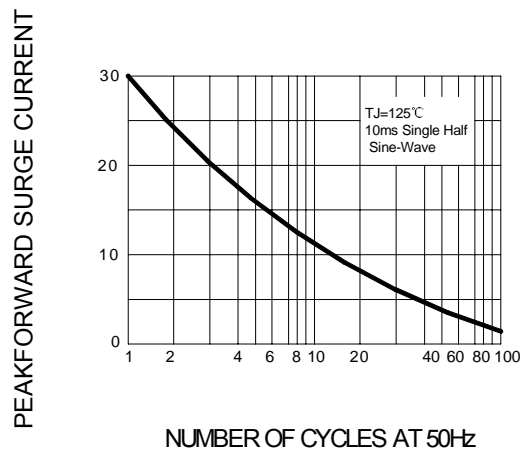


FIG.4 – TYPICAL FORWARD CURRENT DERATING CURVE

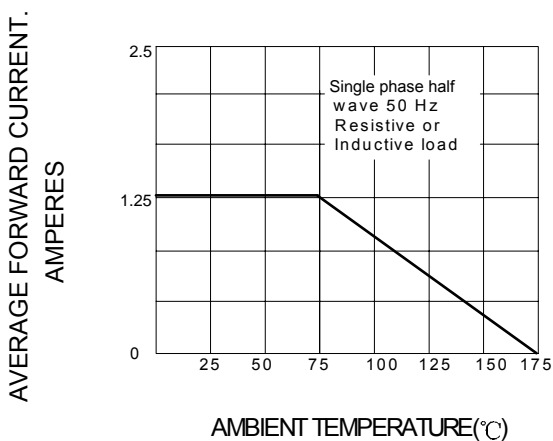


FIG.5-TYPICAL FORWARD CHARACTERISTIC

