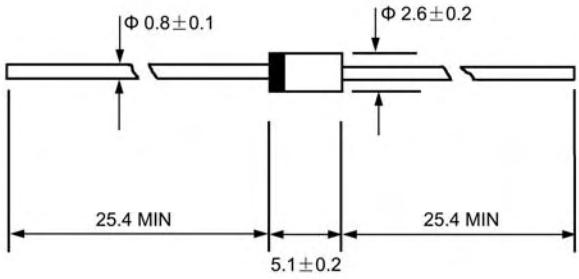
BYT54A-BYT54M

High Efficiency Rectifiers

VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 1.25 A

DO - 41



Dimensions in millimeters

Features

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

Mechanical Data

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ 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℃	$I_{F(AV)}$	1.25							A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	30							A
Maximum instantaneous forward voltage @ 1.0 A	V_F	1.5							V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=125℃	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							℃
Storage temperature range	T_{STG}	- 55 ---- + 175							℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.
2.Thermal resistance from junction to ambient.

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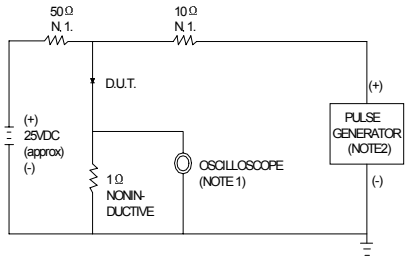
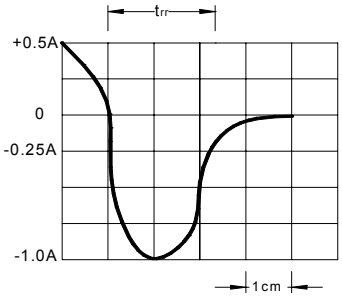
Ratings AND Charactieristic Curves

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 CHARCTERISTICS

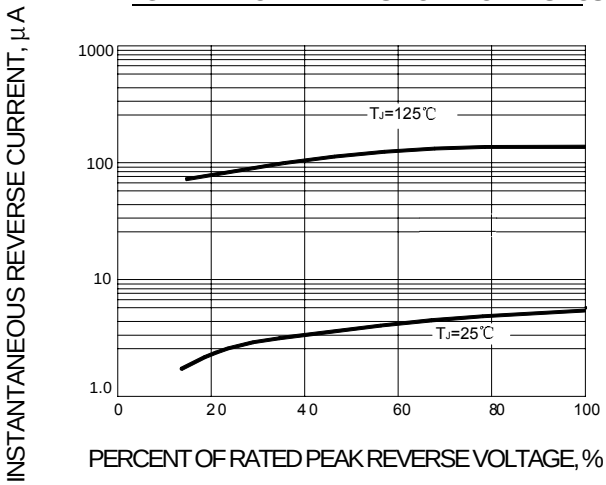


FIG.3 --PEAK FORWARD SURGE CURRENT

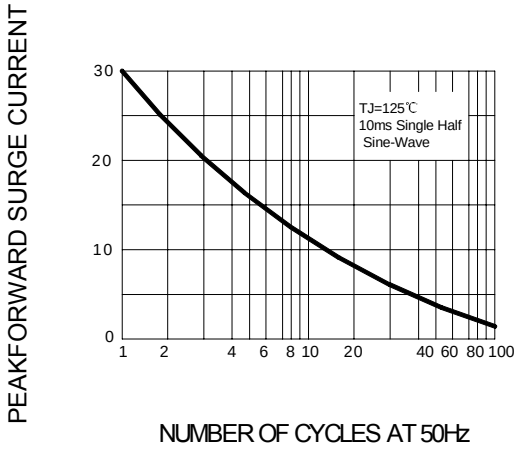


FIG.4 -- TYPICAL FORWARD CURRENT DERATING CURVE

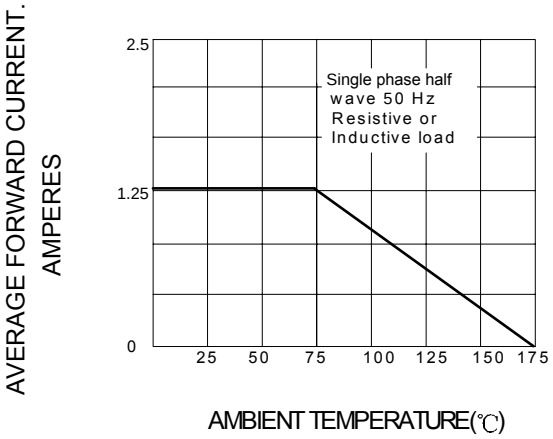


FIG.5--TYPICAL FORWARD CHARACTERISTIC