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BYT56A - BYT56M

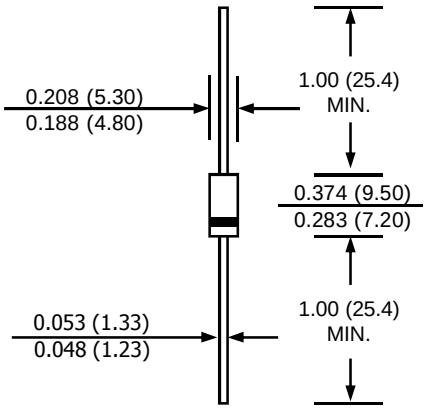
FAST RECOVERY RECTIFIERS

PRV : 50 - 1000 Volts
Io : 3.0 Amperes

FEATURES :
* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* Fast switching for high efficiency
* Pb / RoHS Free

MECHANICAL DATA :
* Case : DO-201AD 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 : 1.16 grams

DO - 201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	BYT 56A	BYT 56B	BYT 56D	BYT 56G	BYT 56J	BYT 56K	BYT 56M	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum Reverse Voltage	V_R	50	100	200	400	600	800	1000	V
Maximum Average Forward Current	$I_{F(AV)}$	1.5 (on PC Board)							A
		3.0 (L = 10 mm, T_L = 25°C)							
Maximum Peak Forward Surge Current, (tp = 10 ms, half sinewave)	I_{FSM}	80							A
Maximum Forward Voltage at I_F = 3 A	V_F	1.4							V
Maximum Reverse Current	I_R	5 (Tj = 25°C)							μA
(V_R = V_{RRM})	$I_{R(H)}$	150 (Tj = 150°C)							μA
Maximum Reverse Recovery Time (I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 A.)	Trr	100							ns
Maximum Junction Ambient Thermal Resistance (L = 10mm, T_L = Constant)	R_{thJA}	25							K/W
Junction Temperature Range	T_J	- 55 to + 175							°C
Storage Temperature Range	T_{STG}	- 55 to + 175							°C

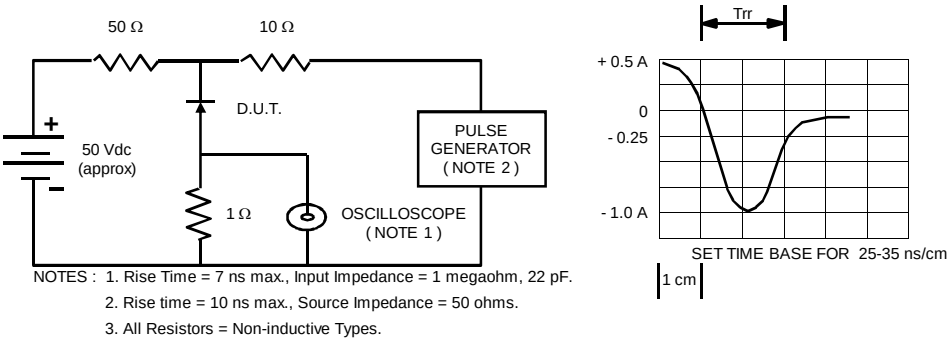
Note :

(1) Reverse Recovery Test Conditions

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RATING AND CHARACTERISTIC CURVES (BAT56A - BAT56M)

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



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

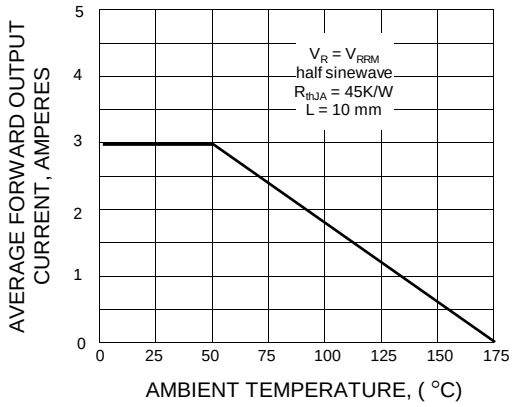


FIG.3 - MAXIMUM THERMAL RESISTANCE vs. LEAD LENGTH

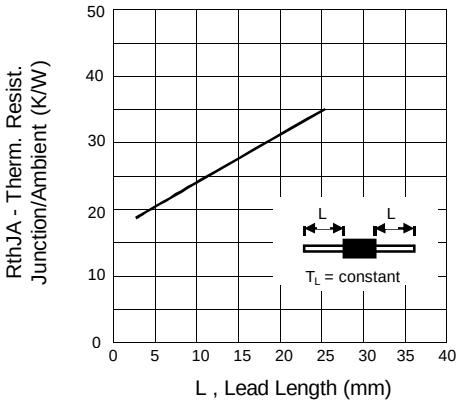


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

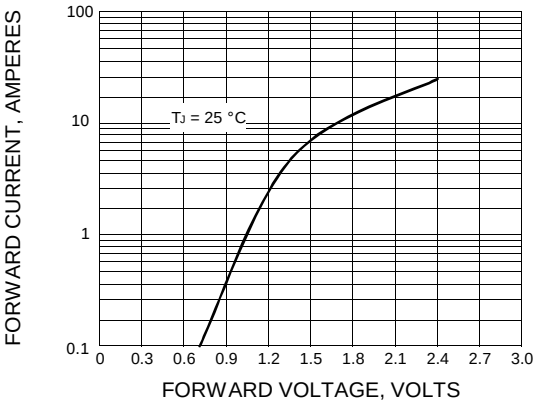
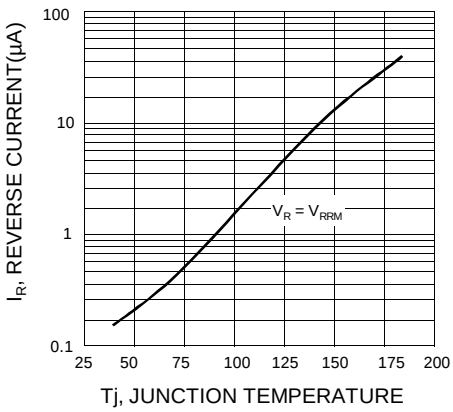


FIG.5 - REVERSE CURRENT vs. JUNCTION TEMPERATURE



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