

BYT52A - BYT52M

FAST RECOVERY RECTIFIERS

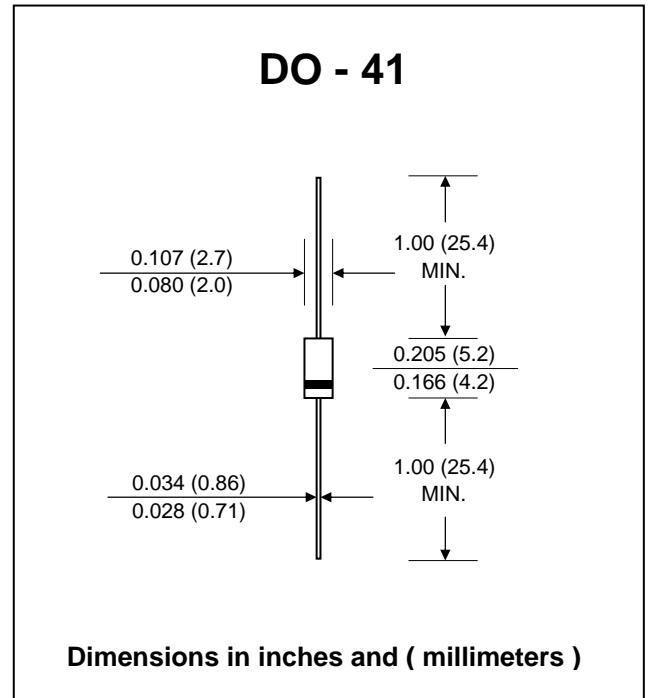
PRV : 50 - 1000 Volts
I_o : 1.4 Amperes

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-41 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 : 0.335 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specific.

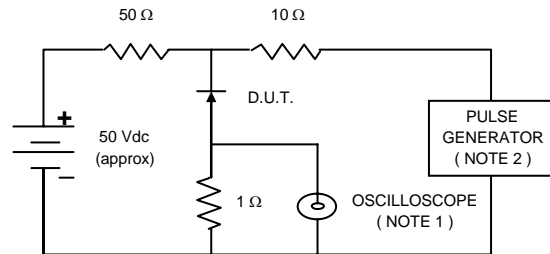
RATING	SYMBOL	BYT 52A	BYT 52B	BYT 52D	BYT 52G	BYT 52J	BYT 52K	BYT 52M	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum Reverse Voltage	V_R	50	100	200	400	600	800	1000	V
Maximum Average Forward Current	$I_{F(AV)}$	0.85 (on PC Board)							A
		1.4 (L = 10 mm, T _L = 25°C)							
Maximum Peak Forward Surge Current, (tp = 10 ms, half sinewave)	I_{FSM}	50							A
Maximum Forward Voltage at I _F = 1.0 A	V_F	1.3							V
Maximum Reverse Current (V _R = V _{RRM})	I_R	10 (T _J = 25°C)							μA
	$I_{R(H)}$	150 (T _J = 150°C)							μA
Maximum Reverse Recovery Time (I _F = 0.5 A, I _R = 1.0 A, I _{rr} = 0.25 A.)	T _{rr}	200							ns
Maximum Junction Ambient Thermal Resistance (L = 10mm, T _L = Constant)	R _{thJA}	45							K/W
Junction Temperature Range	T _J	- 65 to + 175							°C
Storage Temperature Range	T _{STG}	- 65 to + 175							°C

Note :

- (1) Reverse Recovery Test Conditions

RATING AND CHARACTERISTIC CURVES (BAT52A - BAT52M)

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.

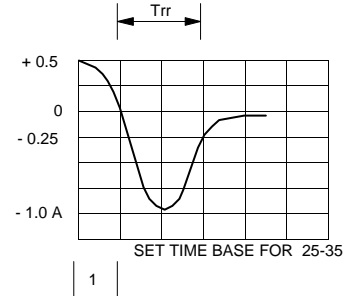


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

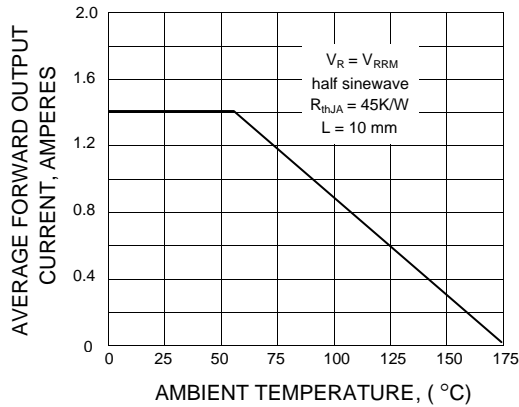


FIG.3 - MAXIMUM THERMAL RESISTANCE vs. LEAD LENGTH

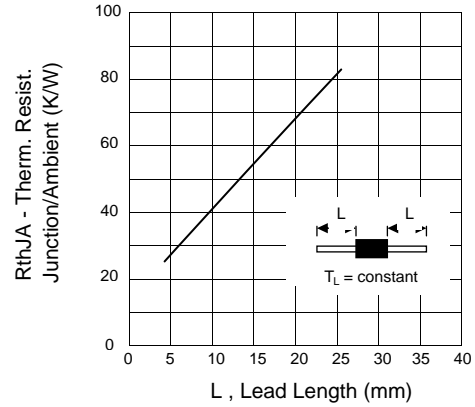


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

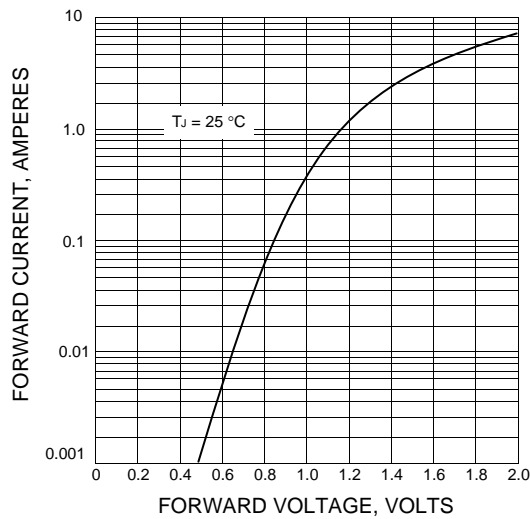


FIG.5 - REVERSE CURRENT vs. JUNCTION TEMPERATURE

