

Features

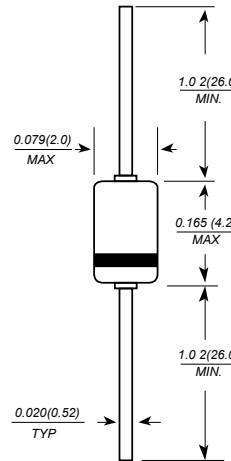
- For general purpose applications.
- These diodes feature very low
- turn-on voltage and fast switching.
- These devices are protected by a PN junction guard ring against excessive voltage, such as electro-static discharges

Mechanical Data

- Case: DO-35, glass case
- Polarity: Color band denotes cathode
- Weight: 0.004 ounces, 0.13 grams



DO-35(GLASS)



Dimensions in millimeters

Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Continuous Forward Current	I_F	200 ⁽¹⁾	mA
Repetitive Peak Forward Current at $t_p < 1s$,	I_{FRM}	500 ⁽¹⁾	mA
Forward Surge Current at $t_p < 10ms$,	I_{FSM}	4 ⁽¹⁾	A
Power Dissipation, $T_a = 65^\circ\text{C}$	P_D	200 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300 ⁽¹⁾	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	125	$^\circ\text{C}$
Ambient Operating Temperature Range	T_a	-65 to + 125	$^\circ\text{C}$
Storage temperature range	T_s	-65 to + 150	$^\circ\text{C}$

Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

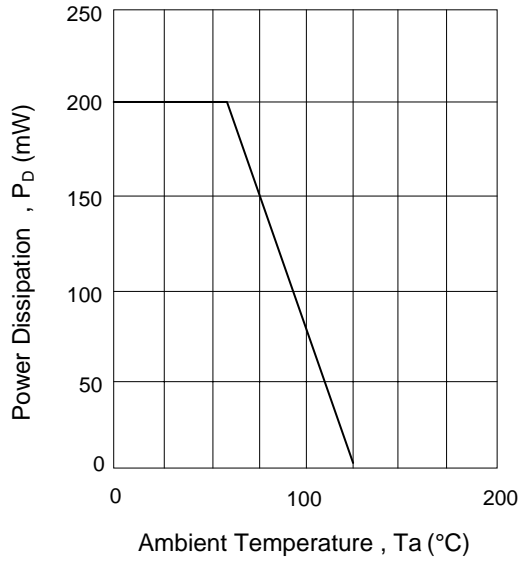
Electrical Characteristics ($T_J = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100 \mu\text{A}$ (pulsed)	30	-	-	V
Reverse Current	I_R	$V_R = 25V$	-	-	0.5	μA
Pulse Test $t_p < 300\mu\text{s}$, $\delta < 2\%$		$V_R = 25V$, $T_J = 100^\circ\text{C}$	-	-	100	μA
Forward Voltage	V_F	$I_F = 200\text{mA}$	-	-	1.00	V
Pulse Test $t_p < 300\mu\text{s}$, $\delta < 2\%$		$I_F = 10\text{mA}$	-	-	0.40	
		$I_F = 50\text{mA}$	-	-	0.65	
		$I_F = 2\text{mA}$	0.26	-	0.33	
		$I_F = 15\text{mA}$	-	-	0.45	
Diode Capacitance	C_d	$V_R = 1V$, $f = 1\text{MHz}$	-	7	-	pF
Reverse Recovery Time	T_{rr}	$I_F = 10\text{mA}$, $I_R = 10\text{mA}$, $I_{rr} = 1\text{mA}$, $R_L = 100\Omega$	-	-	5	ns

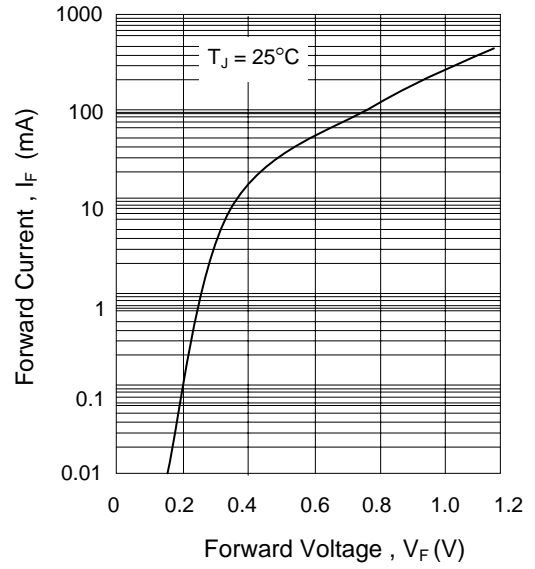


RATING AND CHARACTERISTIC CURVES (BAT42 AND BAT43)

Admissible Power Dissipation vs. Ambient Temperature



Typical Forward Characteristics



Typical Reverse Characteristics

