

**VOLTAGE RANGE: 30 V**  
**CURRENT: 200mA**

### Features

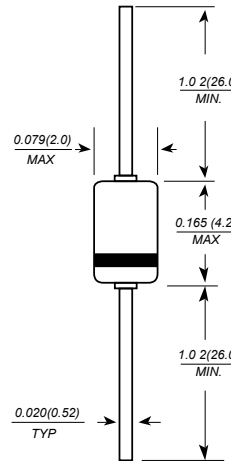
- For general purpose applications.
- These diodes feature very low turn-on voltage and fast switching.
- These devices are protected by a PN junction guard ring against excessive voltage, such as electro-static discharges

### 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 <sup>(1)</sup>	mA
Repetitive Peak Forward Current at $t_p < 1s$ ,	$I_{FRM}$	500 <sup>(1)</sup>	mA
Forward Surge Current at $t_p < 10 ms$ ,	$I_{FSM}$	4 <sup>(1)</sup>	A
Power Dissipation, $T_a = 65^\circ\text{C}$	$P_D$	200 <sup>(1)</sup>	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300 <sup>(1)</sup>	$^\circ\text{C/W}$
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.

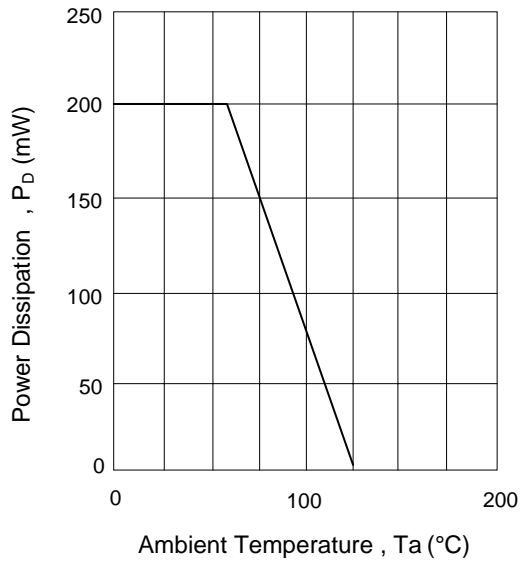
### Electrical Characteristics ( $T_J = 25^\circ\text{C}$ unless otherwise noted)

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	$I_R$	$V_R = 25 \text{ V}$	-	-	0.5	$\mu\text{A}$
Pulse Test $t_p < 300\mu\text{s}$ , $\delta < 2\%$		$V_R = 25 \text{ V}$ , $T_J = 100^\circ\text{C}$	-	-	100	$\mu\text{A}$
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	$C_d$	$V_R = 1\text{V}$ , $f = 1\text{MHz}$	-	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

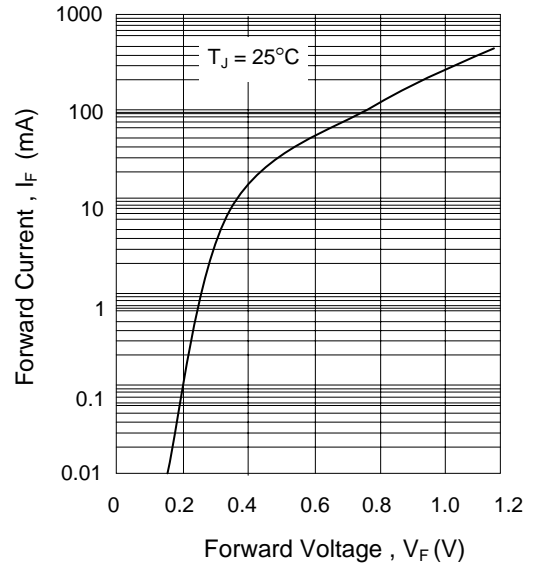


## RATING AND CHARACTERISTIC CURVES ( BAT42 AND BAT43 )

**Admissible Power Dissipation vs. Ambient Temperature**



**Typical Forward Characteristics**



**Typical Reverse Characteristics**

