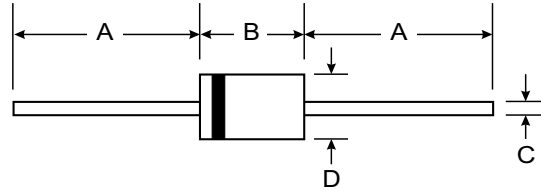


Features

- High Reverse Breakdown Voltage
- Low Turn-On Voltage
- Guard Ring Construction for Transient Protection



Mechanical Data

- Case: DO-35, Plastic
- Leads: Solderable per MIL-STD-202, Method 208
- Marking: Type Number
- Polarity: Cathode Band
- Weight: 0.13 grams (approx.)

DO-35		
Dim	Min	Max
A	25.40	—
B	—	4.00
C	—	0.60
D	—	2.00
All Dimensions in mm		

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

Characteristic	Symbol	BAT46	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Forward Continuous Current (Note 1)	I_{FM}	150	mA
Average Rectified Output Current (Note 1)	I_O	75	mA
Repetitive Peak Forward Current (Note 1) @ $t \leq 1.0\text{s}$	I_{FRM}	350	mA
Non-Repetitive Peak Forward Surge Current @ $t = 10\text{ms}$	I_{FSM}	750	mA
Power Dissipation (Note 1)	P_d	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	500	K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +125	$^\circ\text{C}$

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	100	—	—	V	$I_{RS} = 10\mu\text{A}$ (pulses)
Reverse Leakage Current (Note 2)	I_R	—	—	0.5 5.0 0.8 7.5 2.0 15 5.0 20	μA	$V_R = 1.5\text{V}$ $V_R = 1.5\text{V}, T_j = 60^\circ\text{C}$ $V_R = 10\text{V}$ $V_R = 10\text{V}, T_j = 60^\circ\text{C}$ $V_R = 50\text{V}$ $V_R = 50\text{V}, T_j = 60^\circ\text{C}$ $V_R = 75\text{V}$ $V_R = 75\text{V}, T_j = 60^\circ\text{C}$
Forward Voltage Drop (Note 2)	V_F	—	—	0.25 0.45 1.00	V	$I_F = 0.1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 250\text{mA}$
Junction Capacitance	C_j	—	10 6.0	—	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$ $V_R = 1.0\text{V}, f = 1.0\text{MHz}$

- Notes: 1. Valid provided that electrodes are kept at ambient temperature.
2. $t < 300\mu\text{s}$, Duty Cycle $< 2\%$.