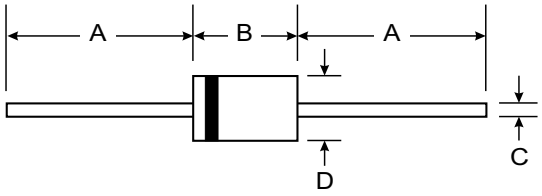
BAT46

SCHOTTKY BARRIER DIODE

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°C unless otherwise specified

Characteristic	Symbol	BAT46	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	V
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 ≤ 1.0s	I_{FRM}	350	mA
Non-Repetitive Peak Forward Surge Current @ t = 10ms	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	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	100	—	—	V	I_{RS} = 10μA (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 = 1.5V V_R = 1.5V, T_j = 60°C V_R = 10V V_R = 10V, T_j = 60°C V_R = 50V V_R = 50V, T_j = 60°C V_R = 75V V_R = 75V, T_j = 60°C
Forward Voltage Drop (Note 2)	V_F	—	—	0.25 0.45 1.00	V	I_F = 0.1mA I_F = 10mA I_F = 250mA
Junction Capacitance	C_j	—	10 6.0	—	pF	V_R = 0V, f = 1.0MHz V_R = 1.0V, f = 1.0MHz

Notes: 1. Valid provided that electrodes are kept at ambient temperature.
2. t < 300μs, Duty Cycle < 2%.