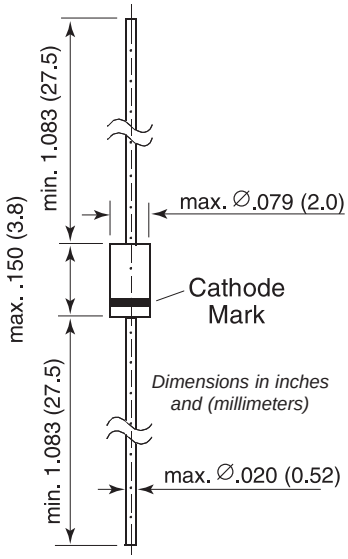
BAT86

Schottky Diode

DO-35 Glass



Features

- For general purpose applications.
- This diode features low turn-on voltage. This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- Metal-on-silicon Schottky barrier device which is protected by a PN junction guard ring. The low forward voltage drop and fast switching make it ideal for protection of MOS devices, steering, biasing and coupling diodes for fast switching and low logic level applications.
- This diode is also available in the MiniMELF case with type designation BAS86.

Mechanical Data

Case: DO-35 Glass Case

Weight: approx. 0.13g

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	50	V
Forward Continuous Current at T_{amb} = 25°C	I_F	200(1)	mA
Repetitive Forward Current at t_p < 1s, $\upsilon \leq 0.5$, T_{amb} = 25°C	I_{FRM}	500(1)	mA
Power Dissipation at T_{amb} = 25°C	P_{tot}	200(1)	mW
Thermal Resistance Juntion to Ambient Air	$R_{\theta JA}$	300(1)	°C/W
Junction Temperature	T_j	125	°C
Ambient Operating Temperature Range	T_{amb}	–65 to +125	°C
Storage Temperature Range	T_S	–65 to +150	°C

Electrical Characteristics

(T_J = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R = 10µA (pulsed)	50	—	—	V
Leakage Current	I_R	V_R = 40V	—	0.3	5.0	µA
Forward Voltage Pulse Test t_p < 300µs, δ < 2%	V_F	I_F = 0.1mA I_F = 1mA I_F = 10mA I_F = 30mA I_F = 100mA	— — — — —	0.200 0.275 0.365 0.460 0.700	0.300 0.380 0.450 0.600 0.900	V
Capacitance	C_{tot}	V_R = 1V, f = 1MHz	—	—	8	pF
Reverse Recovery Time	t_{rr}	I_F = 10mA to I_R = 10mA to I_R = 1mA	—	—	5	ns