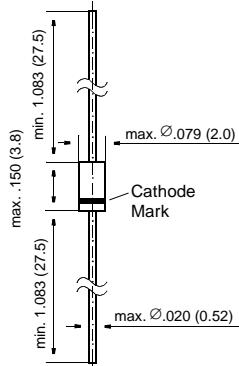


BAT86

Schottky Diodes

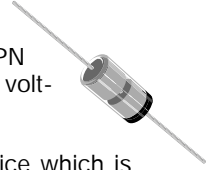
DO-35



Dimensions in inches and (millimeters)

FEATURES

- ◆ For general purpose applications.
- ◆ This diode features low turn-on voltage. The devices are 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 Mini-MELF case with the type designation BAS86.



MECHANICAL DATA

Case: DO-35 Glass Case

Weight: approx. 0.13 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Max.	Unit
Continuous Reverse Voltage	V_R	–	50	V
Forward Continuous Current at $T_{amb} = 25\text{ °C}$	I_F	–	200 ¹⁾	mA
Repetitive Forward Current at $t_p < 1\text{ s}$, $\nu \leq 0.5$, $T_{amb} = 25\text{ °C}$	I_{FRM}	–	500 ¹⁾	mA
Power Dissipation at $T_{amb} = 25\text{ °C}$	P_{tot}	–	200 ¹⁾	mW
Junction Temperature	T_j	–	125	°C
Ambient Operating Temperature Range	T_{amb}	–65	+125	°C
Storage Temperature Range	T_S	–65	+150	°C

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

BAT86

ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage Pulse Test $t_p < 300 \mu\text{s}$, $\delta < 2\%$ at $I_F = 0.1 \text{ mA}$ at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 30 \text{ mA}$ at $I_F = 100 \text{ mA}$	V_F V_F V_F V_F V_F	- - - - -	0.200 0.275 0.365 0.460 0.700	0.300 0.380 0.450 0.600 0.900	V V V V V
Leakage Current at $V_R = 25 \text{ V}$	I_R	-	0.2	0.5	μA
Reverse Breakdown Voltage tested with 10 μA Pulses	$V_{(BR)R}$	50	-	-	V
Capacitance at $V_R = 1 \text{ V}$, $f = 1 \text{ MHz}$	C_{tot}	-	-	8	pF
Thermal Resistance Junction to Ambient Air	R_{thJA}	-	-	300 ¹⁾	K / W
Reverse Recovery Time from $I_F = 10 \text{ mA}$ to $I_R = 10 \text{ mA}$ to $I_R = 1 \text{ mA}$	t_{rr}	-	-	5	ns

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