



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

BAT85

TECHNICAL SPECIFICATIONS OF SMALL SIGNAL SCHOTTKY BARRIER DIODES
VOLTAGE - 30 Volts
CURRENT - 0.2 Amperes

FEATURES

- * For general purpose applications
- * This diode features very low turn-on voltage and fast switching. This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharge(ESD).

MECHANICAL DATA

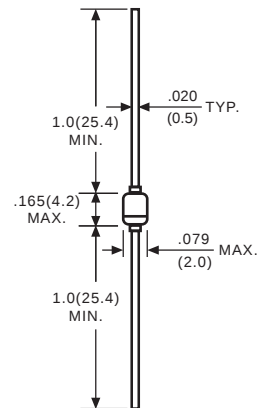
- * Case: Glass sealed case
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.13 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



DO-35



Dimensions in inches and (millimeters)

	SYMBOL	BAT85	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	30	Volts
Maximum RMS Voltage	V_{RMS}	21	Volts
Maximum DC Blocking Voltage	V_{DC}	30	Volts
Maximum Average Forward Rectified Current at $T_A=75^{\circ}\text{C}$	I_O	0.2	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	4.0	Amps
Maximum Instantaneous Forward Voltage at 0.1A DC	V_F	0.8	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage, $T_A=25^{\circ}\text{C}$	I_R	2.0	μAmps
Typical Thermal Resistance (Note1)	$R_{\theta JA}$	300	$^{\circ}\text{C/W}$
Typical Junction Capacitance (Note 2)	C_J	10	pF
Storage Operating Temperature Range	T_J, T_{STG}	-55 to +125	$^{\circ}\text{C}$

NOTES : 1. Leads maintained at specified ambient temperature at a distance of 4.0mm from case.
2. Measured at 1 MHz and applied reverse voltage of 1.0 volts.

RATING AND CHARACTERISTIC CURVES (BAT85)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

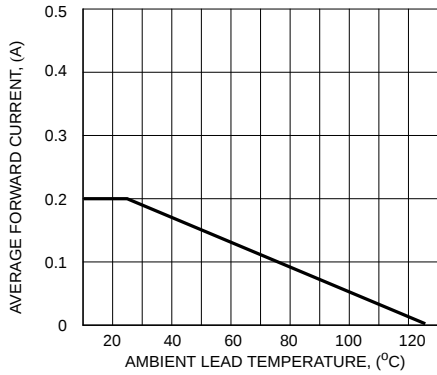


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

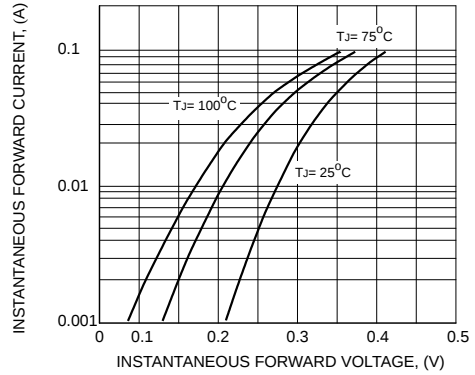


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

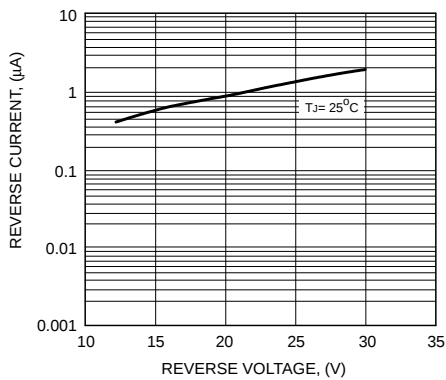


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

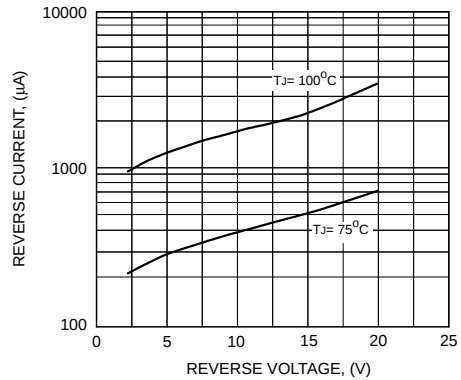


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

