

BAT42 THRU BAT43

SCHOTTKY DIODES

FEATURES:

- Low Forward Voltage drop
- Fast general purpose applications
- These diodes feature very low turn-on voltage and swifing. These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- These diodes are also available in the SOD-123 case with the type designation BAT42W to BAT43W

MECHANICAL DATA

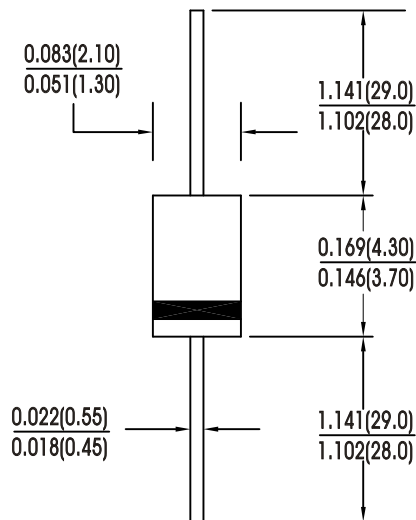
Case : DO-35 Glass case

Polarity : Cathode band

Leads : Solderable per MIL-STD-202, Method 208

Weight : 0.13 grams

DO-35



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase half wave, 60 Hz resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	BAT42	BAT43	Units
Maximum recurrent peak reverse voltage	V_{RRM}	30	30	Volts
Forward continuous current at $T_a=25^\circ\text{C}$	I_F	0.2 ¹⁾		Amps
Surge forward current at $t_p < 10\text{ms}, T_{amb}=25^\circ\text{C}$	I_{FSM}	4 ¹⁾		Amps
Power dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	200 ¹⁾		mW
Minimum Reverse breakdown tested at $I_{BR}=100\mu\text{A}$	$V_{(BR)R}$	30		Volts
Maximum instantaneous forward voltage Both Typs $I_F=200\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=2\text{mA}$ $I_F=15\text{mA}$	V_F	0.40 0.65	1.0 0.33 0.45	Volts
Maximum leakage current at $V_R=25\text{V}$ $T_a=25^\circ\text{C}$ $T_a=100^\circ\text{C}$	I_R	0.5 100		μA
Total capacitance at $V_R=1\text{V}, f=1\text{MHz}$	C_{tot}	7		P_F
Maximum reverse recovery time from $I_F=I_R=0.01\text{A}, I_{RR}=1\text{mA}, R_L=100$	T_{RR}	5.0		nS
Ambient operating temperature range	T_{amb}	-65to +125		$^\circ\text{C}$
Storage temperature range	T_{stg}	-65to +150		$^\circ\text{C}$

NOTES:

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

RATINGS AND CHARACTERISTIC CURVES BAT42 THRU BAT43

FIG. 1-ADMISSIBLE POWER DISSIPATION

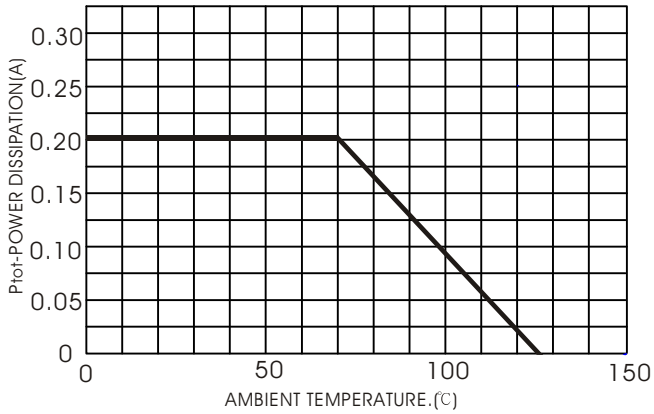


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

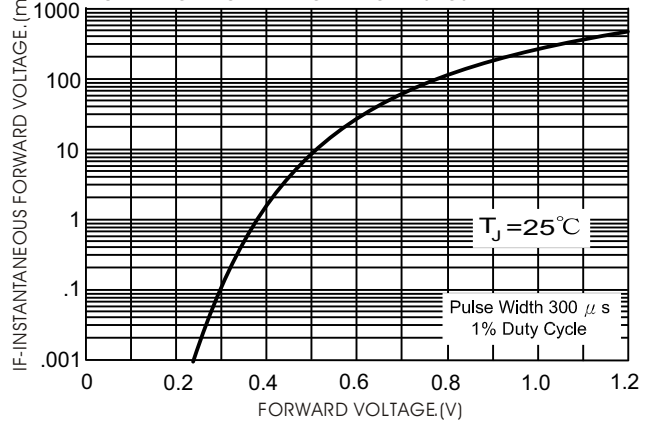


FIG. 3-TYPICAL REVERSE CHARACTERISTIC

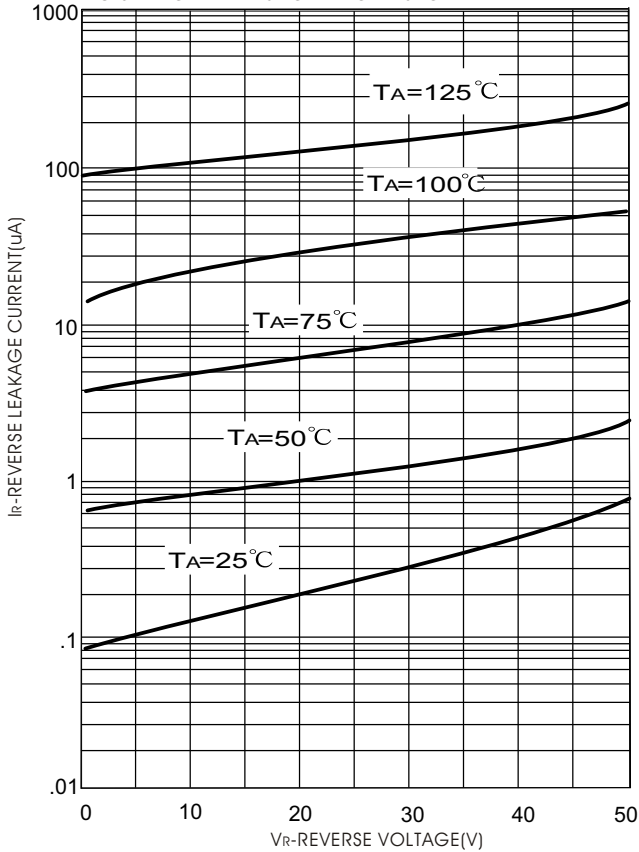


FIG. 4-TYPICAL CAPACITANCE

