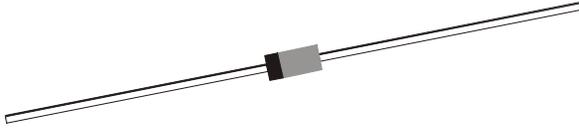


## SCHOTTKY BARRIER RECTIFIER

**BAT85**

**DO-35**

**Glass Axial Package**



For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

**ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless specified otherwise)

Single phase, half wave, resistive or inductive load. For capacitive load, derate current by 20%.

DESCRIPTION	SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage	$V_R$	30	V
Forward continuous Current at $T_A = 25^\circ\text{C}$	$I_F$	200 <sup>(1)</sup>	mA
Repetitive Peak Forward Current at $T_A = 25^\circ\text{C}$	$I_{FM}$	300 <sup>(1)</sup>	mA
Surge forward current at $t_p < 10\text{ns}$ $T_A = 25^\circ\text{C}$	$I_{FSM}$	600 <sup>(1)</sup>	mA
Power Dissipation at $T_A = 65^\circ\text{C}$	$P_{tot}$	200 <sup>(1)</sup>	mW
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Ambient Operating Temperature Range	$T_A$	-65 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-65 to +150	$^\circ\text{C}$

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

### ELECTRICAL CHARACTERISTICS

	Symbol	Min.	Typ.	Max	Units
Reverse breakdown voltage tested with 100 $\mu\text{A}$ pulses	$V_{(BR)R}$	30			V
Forward Voltage Pulse test $t_p < 300\mu\text{s}$ at $I_F = 0.1\text{mA}$	$V_F$			0.24	V
at $I_F = 1\text{mA}$	$V_F$			0.32	V
at $I_F = 10\text{mA}$	$V_F$			0.40	V
at $I_F = 30\text{mA}$	$V_F$		0.50		V
at $I_F = 100\text{mA}$	$V_F$			0.80	V
Leakage current $V_R = 25\text{V}$	$I_R$			2	$\mu\text{A}$
Junction Capacitance at $V_R = 1\text{V}$ , $f = 1\text{MHz}$	$C_j$			10	pF
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
Thermal resistance junction to ambient Air	$R_{\theta JA}$			300 <sup>(1)</sup>	K/W

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



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### **Disclaimer**

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