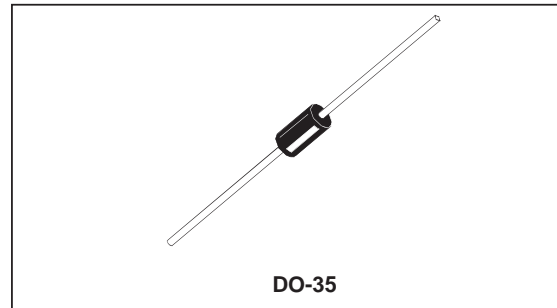


SMALL SIGNAL SCHOTTKY DIODE

DESCRIPTION

General purpose metal to silicon diode featuring very low turn-on voltage and fast switching. This device has integrated protection against excessive voltage such as electrostatic discharges.



ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	100	V
I_F	Forward Continuous Current*	$T_a = 25^\circ\text{C}$ 100	mA
I_{FRM}	Repetitive Peak Forward Current*	$t_p \leq 1\text{s}$ $\delta \leq 0.5$ 350	mA
I_{FSM}	Surge non Repetitive Forward Current*	$t_p \leq 10\text{ms}$ 750	mA
P_{tot}	Power Dissipation*	$T_a = 95^\circ\text{C}$ 100	mW
T_{stg} T_j	Storage and Junction Temperature Range	- 65 to +150 - 65 to +125	$^\circ\text{C}$ $^\circ\text{C}$
T_L	Maximum Lead Temperature for Soldering during 10s at 4mm from Case	230	$^\circ\text{C}$

THERMAL RESISTANCE

Symbol	Test Conditions	Value	Unit
$R_{th(j-a)}$	Junction-ambient*	300	$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
V_{BR}	$T_j = 25^\circ\text{C}$	$I_R = 100\mu\text{A}$	100			V
V_F^{**}	$T_j = 25^\circ\text{C}$	$I_F = 1\text{mA}$		0.4	0.45	V
	$T_j = 25^\circ\text{C}$	$I_F = 200\text{mA}$			1	
I_R^{**}	$T_j = 25^\circ\text{C}$	$V_R = 50\text{V}$			0.1	μA
	$T_j = 100^\circ\text{C}$				20	

DYNAMIC CHARACTERISTICS

Symbol	Test Conditions			Min.	Typ.	Max.	Unit
C	$T_j = 25^\circ\text{C}$	$V_R = 1\text{V}$	$f = 1\text{MHz}$		2		pF

* On infinite heatsink with 4mm lead length

** Pulse test: $t_p \leq 300\mu\text{s}$ $\delta < 2\%$.

Fig. 1: Forward current versus forward voltage at different temperatures (typical values).

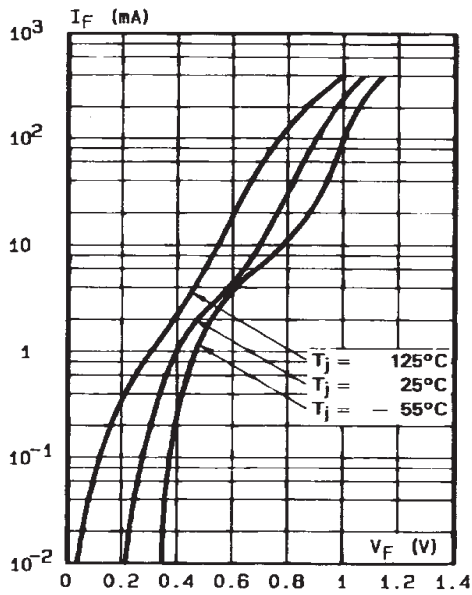


Fig. 2: Forward current versus forward voltage (typical values).

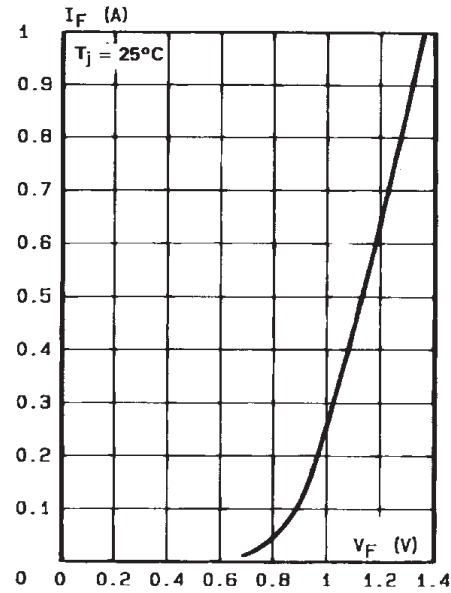


Fig. 3: Reverse current versus junction temperature.

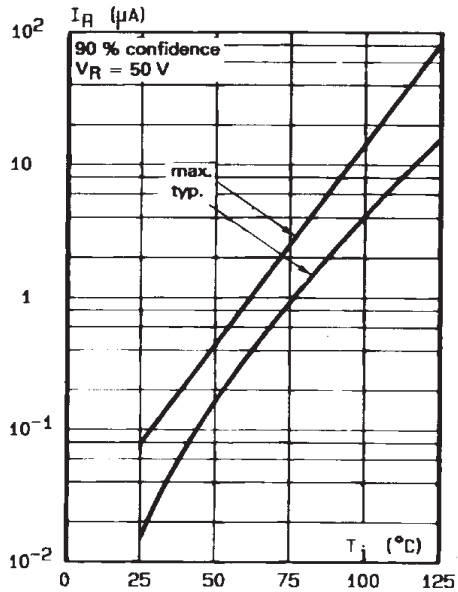


Fig. 4: Reverse current versus continuous reverse voltage (typical values).

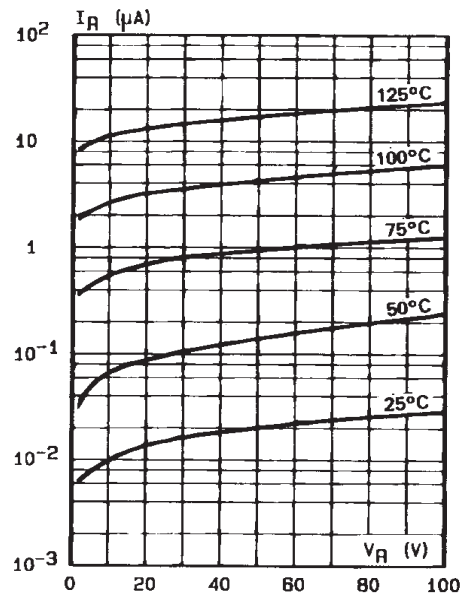
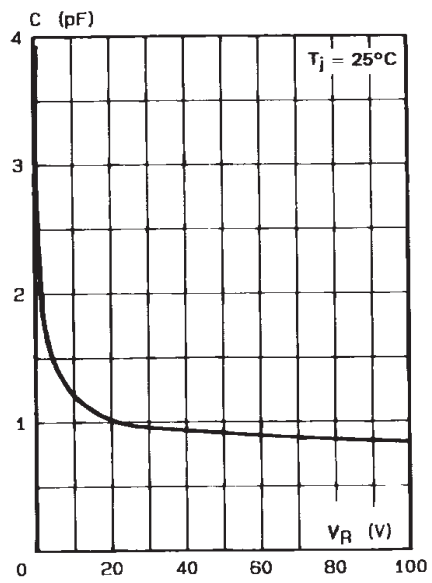
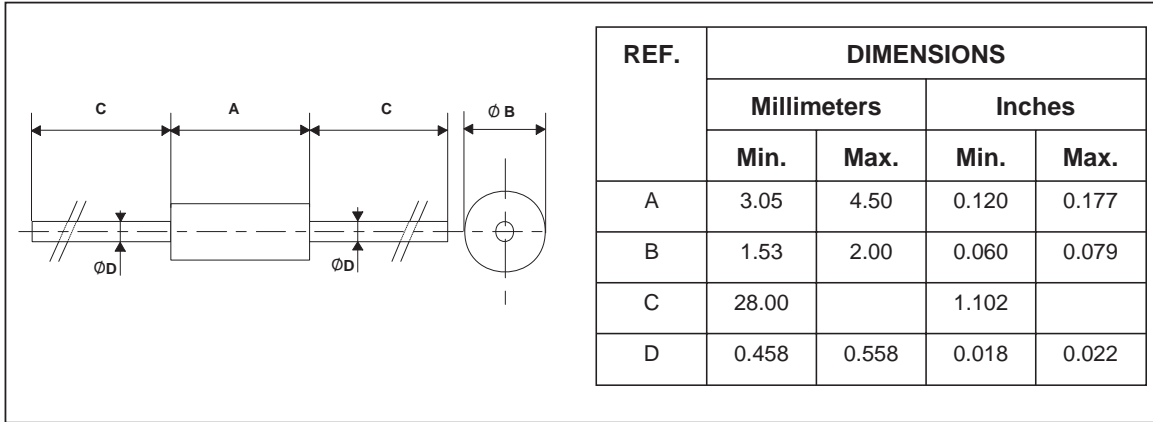


Fig. 5: Capacitance C versus reverse applied voltage V_R (typical values).



BAT41

PACKAGE MECHANICAL DATA DO-35



Cooling method : by convection and conduction
Marking: clear, ring at cathode end.
Weight: 0.15g

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