

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
V_{BR}	$T_j = 25^{\circ}\text{C}$	$I_R = 100\mu\text{A}$	30			V
V_F^*	$T_j = 25^{\circ}\text{C}$	$I_F = 200\text{mA}$	All Types		1	V
	$T_j = 25^{\circ}\text{C}$	$I_F = 10\text{mA}$	BAT 42		0.4	
	$T_j = 25^{\circ}\text{C}$	$I_F = 50\text{mA}$			0.65	
	$T_j = 25^{\circ}\text{C}$	$I_F = 2\text{mA}$	BAT 43		0.26	
	$T_j = 25^{\circ}\text{C}$	$I_F = 15\text{mA}$			0.45	
I_R^*	$T_j = 25^{\circ}\text{C}$	$V_R = 25\text{V}$			0.5	μA
	$T_j = 100^{\circ}\text{C}$				100	

DYNAMIC CHARACTERISTICS

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
C	$T_j = 25^{\circ}\text{C}$	$V_R = 1\text{V}$ $f = 1\text{MHz}$		7		pF
t_{rr}	$T_j = 25^{\circ}\text{C}$	$I_F = 10\text{mA}$ $I_R = 10\text{mA}$ $i_{rr} = 1\text{mA}$ $R_L = 100\Omega$			5	ns
h	$T_j = 25^{\circ}\text{C}$	$R_L = 15\text{K}\Omega$ $C_L = 300\text{pF}$ $f = 45\text{MHz}$ $V_i = 2\text{V}$	80			%

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

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

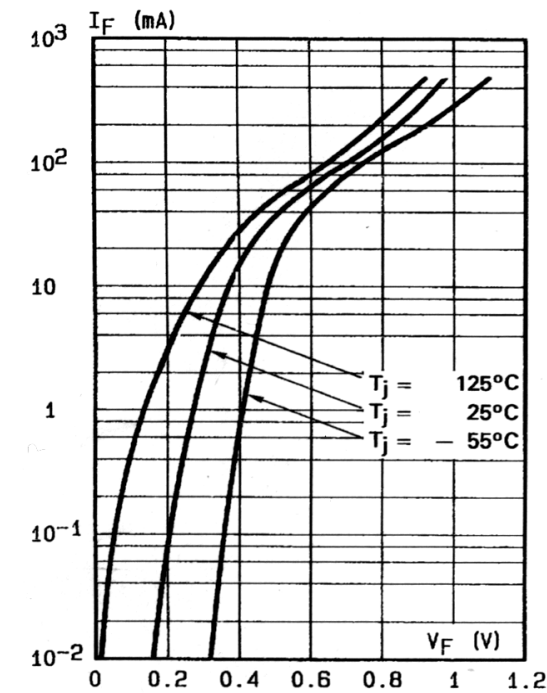


Fig. 2: Forward current versus forward voltage (typical values).

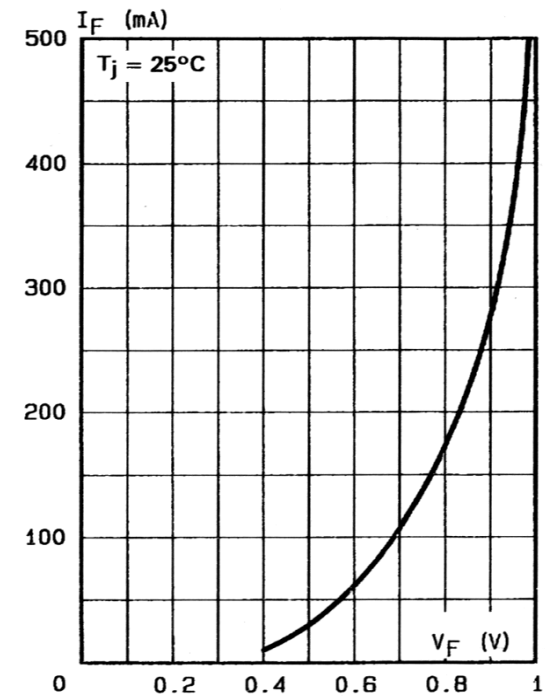


Fig. 3: Reverse current versus junction temperature (typical values).

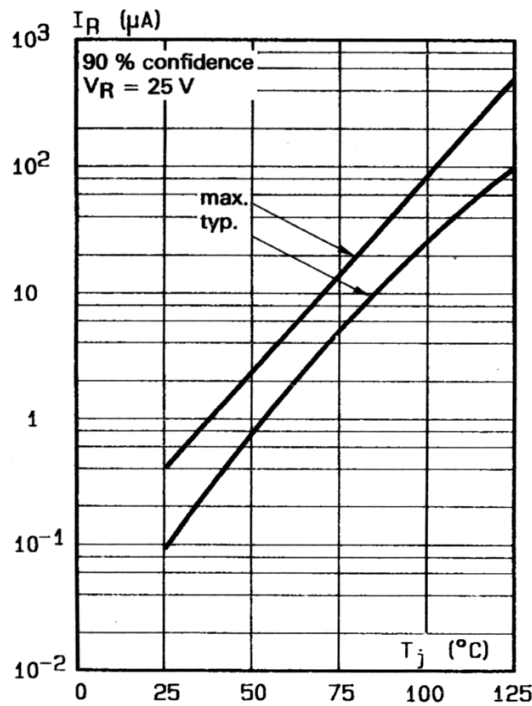


Fig. 4: Reverse current versus continuous reverse voltage.

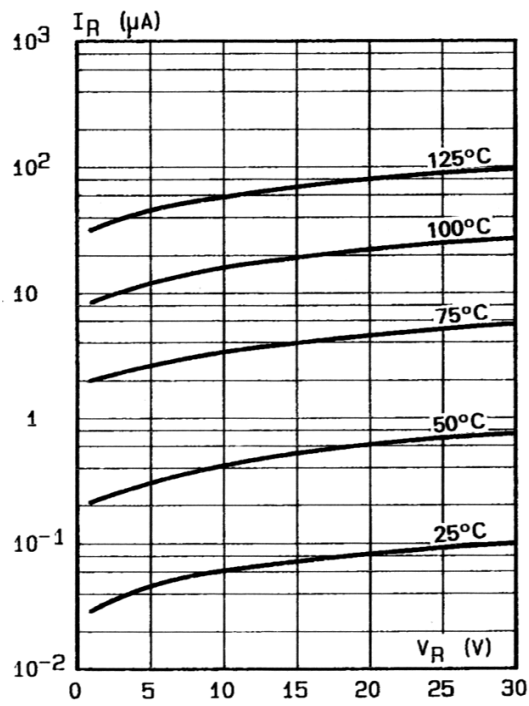
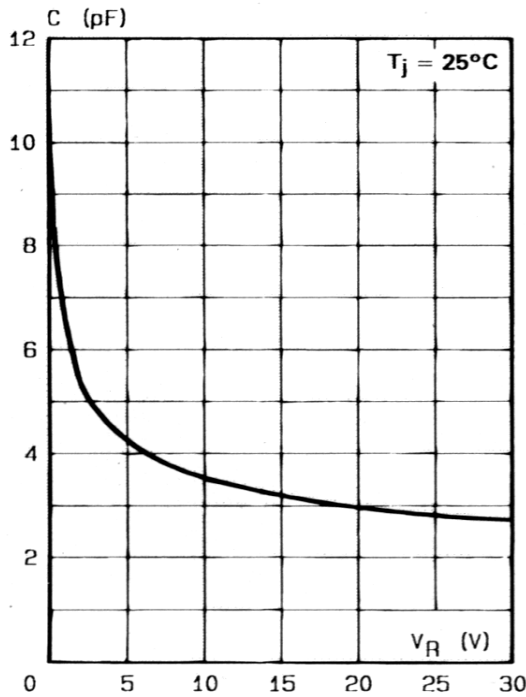
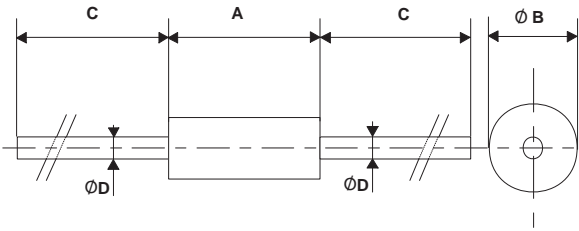


Fig. 5: Capacitance C versus reverse applied voltage V_R (typical values).



BAT42 / BAT43

PACKAGE MECHANICAL DATA DO-35

	REF.	DIMENSIONS			
		Millimeters		Inches	
		Min.	Max.	Min.	Max.
A		3.05	4.50	0.120	0.177
B		1.53	2.00	0.060	0.079
C		28.00		1.102	
D		0.458	0.558	0.018	0.022

Cooling method: by convection and conduction

Marking: clear, ring at cathode end.

Weight: 0.15g

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