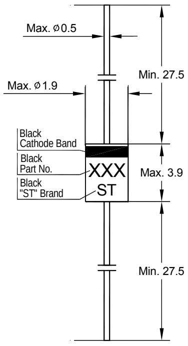
BAT42, BAT43

SCHOTTKY BARRIER DIODES

for general purpose applications



Glass Case DO-35
Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Forward Continuous Current	I_F	200	mA
Repetitive Peak Forward Current (at tp < 1 s)	I_{FRM}	500	mA
Surge Forward Current (at tp < 10 ms)	I_{FSM}	4	A
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °C

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward Voltage						
at I_F = 200 mA		V_F	-	-	1	V
at I_F = 10 mA	BAT42	V_F	-	-	0.4	V
at I_F = 50 mA	BAT42	V_F	-	-	0.65	V
at I_F = 2 mA	BAT43	V_F	0.26	-	0.33	V
at I_F = 15 mA	BAT43	V_F	-	-	0.45	V
Reverse Breakdown Voltage at I_R = 100 µA		$V_{(BR)R}$	30	-	-	V
Reverse Leakage Current at V_R = 25 V		I_R	-	-	0.5	µA
Diode Capacitance at V_R = 1 V, f = 1 MHz		C_{tot}	-	7	-	pF
Reverse Recovery Time at $I_F = I_R$ = 10 mA, I_{rr} = 0.1 X I_R, R_L = 100 Ω		t_{rr}	-	-	5	ns

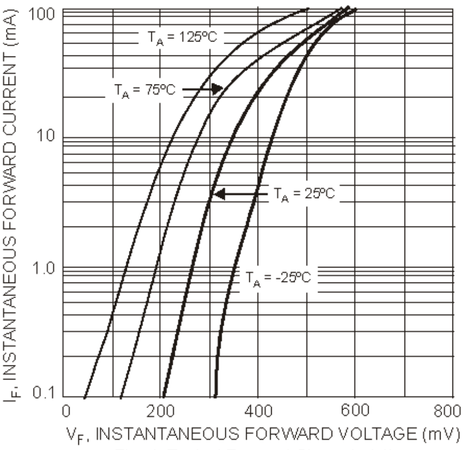


Fig. 1 Typical Forward Characteristics

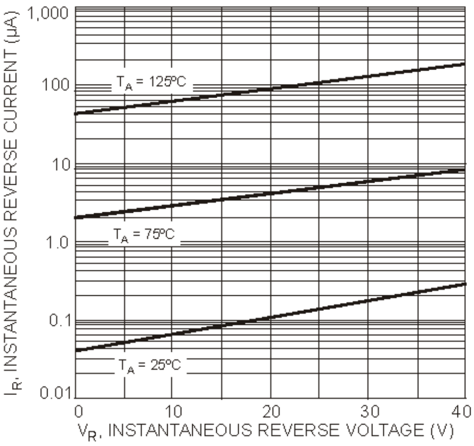


Fig. 2 Typical Reverse Characteristics

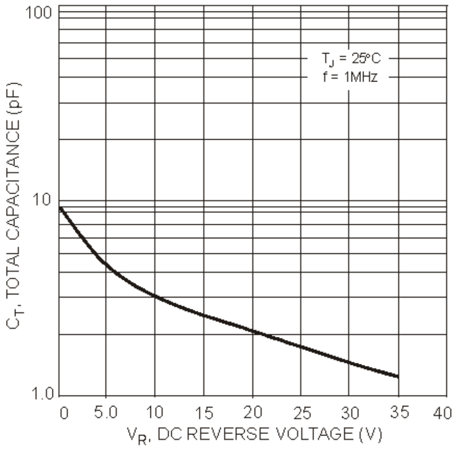


Fig. 3 Total Capacitance vs. Reverse Voltage

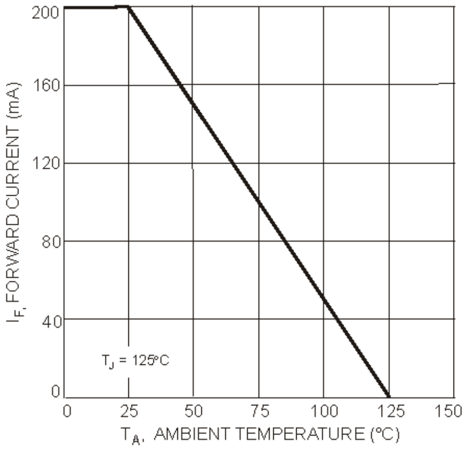


Fig. 4 Forward Current Derating Curve