

BAT42W - BAT43W

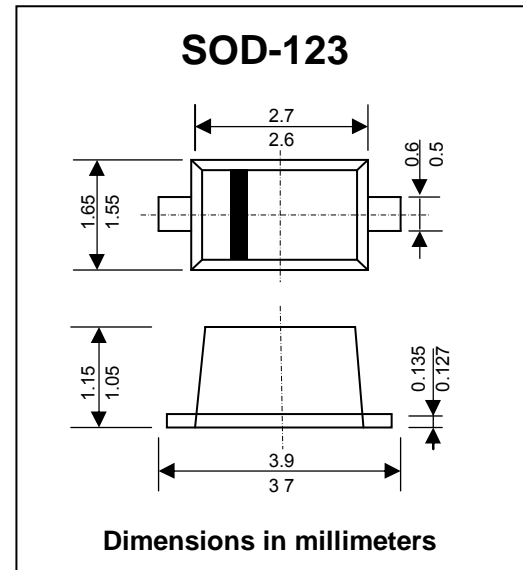
SCHOTTKY BARRIER DIODES

FEATURES :

- * Low forward voltage drop
- * Fast switching
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SOD-123
- * Weight : 0.01 gram (approximately)
- * BAT42W Marking Code : PX
- * BAT43W Marking Code : PY

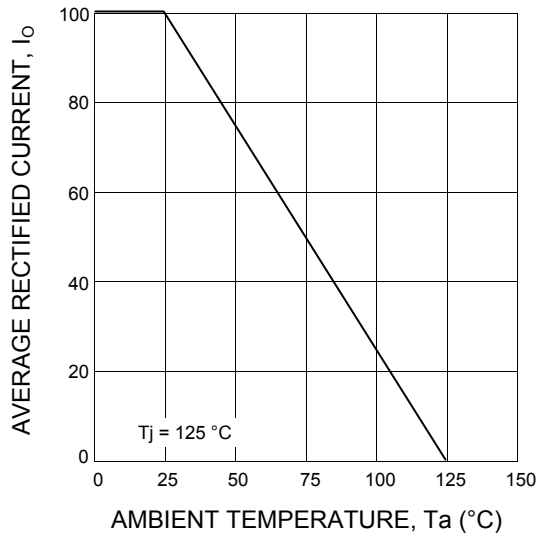
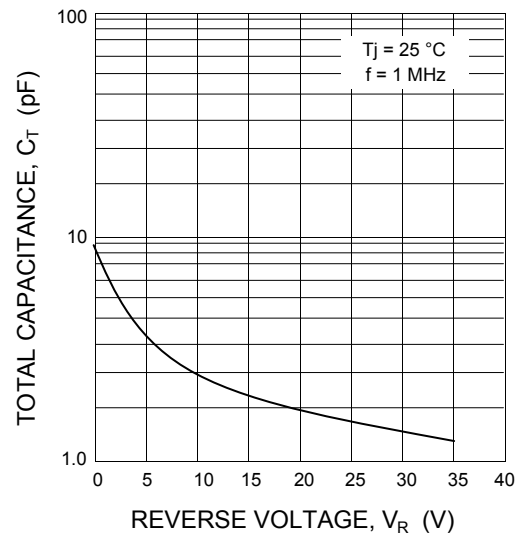
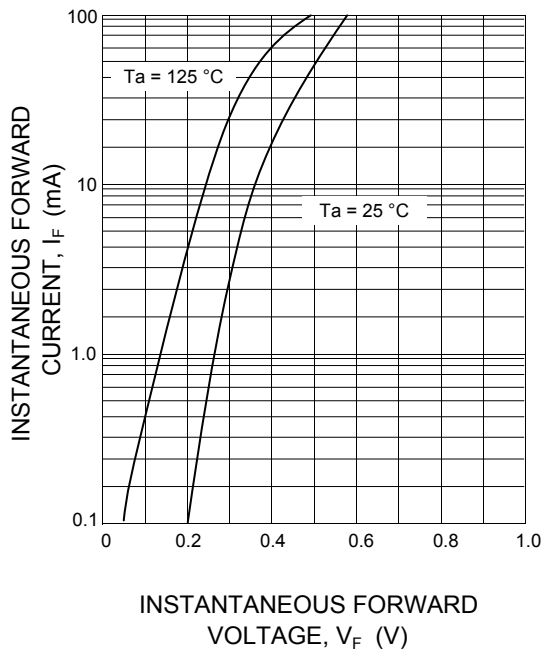


Absolute Maximum Ratings (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Reverse Voltage	V_R	30	V
Forward Continuous Current	I_{FM}	200	mA
Repetitive Peak Forward Current at $t < 1$ s	I_{FRM}	500	mA
Non-repetitive Peak Forward Surge Current at $t < 10$ ms	I_{FSM}	4	A
Power Dissipation	P_{tot}	200	mW
Thermal Resistance Junction to Ambient Air	R_{0JA}	625	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 125	°C

Electrical Characteristics (Ta = 25 °C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100 \mu A$	30	-	-	V
Peak Reverse Current	I_R	$V_R = 25$ V	-	-	500	nA
Forward Voltage	V_F	$I_F = 200$ mA	-	-	1.00	V
		BAT42W $I_F = 10$ mA	-	-	0.40	
		BAT42W $I_F = 50$ mA	-	-	0.65	
		BAT43W $I_F = 2$ mA	0.26	-	0.33	
BAT43W $I_F = 15$ mA	-	-	0.45			
Total Capacitance	C_T	$V_R = 1$ V, $f = 1$ MHz	-	-	10	pF
Reverse Recovery Time	T_{rr}	$I_F = I_R = 10$ mA , $I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$	-	-	5	ns

RATING AND CHARACTERISTIC CURVES (BAT42W - BAT43W)
FIG.1 - FORWARD CURRENT DERATING CURVE

FIG.2 - TOTAL CAPACITANCE VS. REVERSE VOLTAGE

FIG.3 - TYPICAL FORWARD CHARACTERISTICS

FIG.4 - TYPICAL REVERSE CHARACTERISTICS
