

# BAT42W - BAT43W

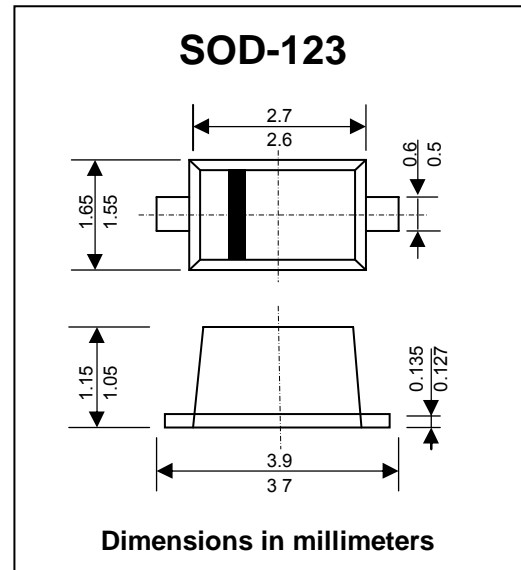
# SCHOTTKY BARRIER DIODES

### 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 )

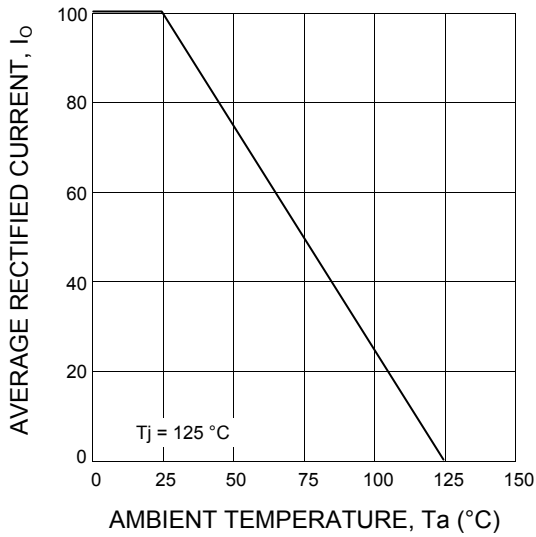
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	30	V
Reverse Voltage	$V_R$	30	V
Forward Continuous Current	$I_{FM}$	200	mA
Repetitive Peak Forward Current at $t < 1$ s	$I_{FRM}$	500	mA
Non-repetitive Peak Forward Surge Current at $t < 10$ ms	$I_{FSM}$	4	A
Power Dissipation	$P_{tot}$	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 )

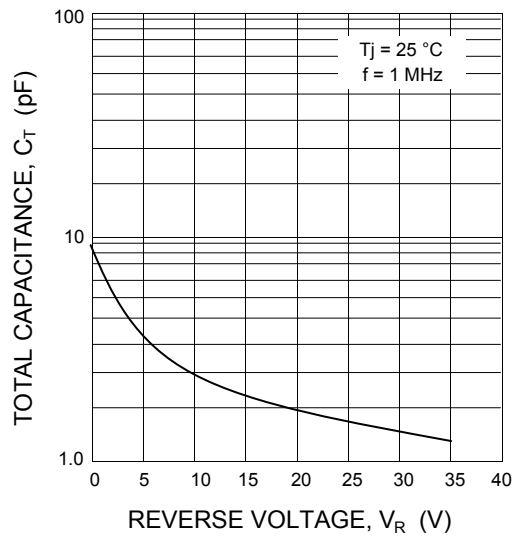
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100 \mu A$	30	-	-	V
Peak Reverse Current	$I_R$	$V_R = 25$ V	-	-	500	nA
Forward Voltage	$V_F$	$I_F = 200$ mA	-	-	1.00	V
		BAT42W $I_F = 10$ mA	-	-	0.40	
		BAT42W $I_F = 50$ mA	-	-	0.65	
		BAT43W $I_F = 2$ mA	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 )**

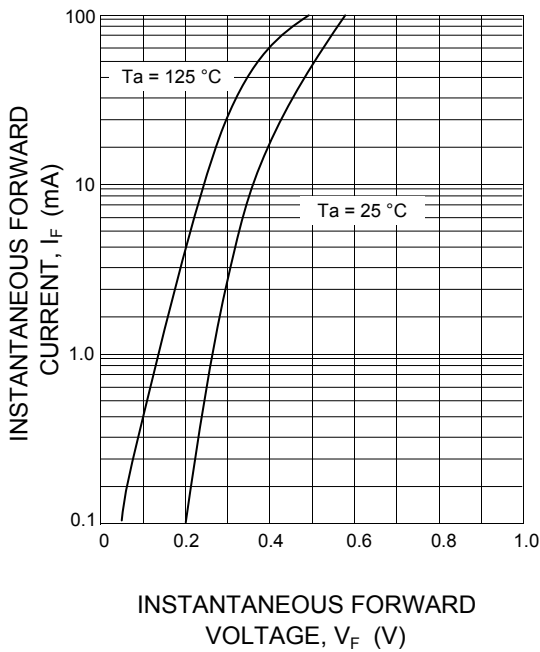
**FIG.1 - FORWARD CURRENT DERATING CURVE**



**FIG.2 - TOTAL CAPACITANCE VS. REVERSE VOLTAGE**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

