

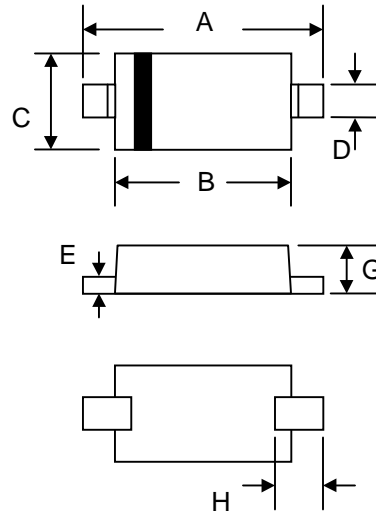
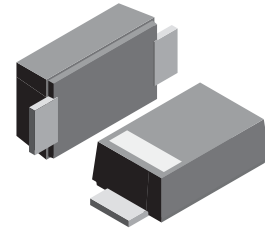
VOLTAGE RANGE: 30V
CURRENT: 0.2 A

Features

- Low forward voltage drop
- Fast switching
- Ultra-small surface mount package

Mechanical Data

- Case : SOD-323 plastic Case
- Weight : approx. 0.004 g
- BAT42WS Marking Code : X9
- BAT43WS Marking Code : Y9



SOD-323		
Dim	Min	Max
A	2.30	2.70
B	1.75	1.95
C	1.15	1.35
D	0.25	0.35
E	0.05	0.15
G	0.70	0.95
H	0.30	—
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	30	V
Average Rectified Output Current	I _O	100	mA
Continuous Forward Current	I _F	200	mA
Repetitive Peak Forward Current at t _p < 1 s	I _{FRM}	500	mA
Non-repetitive Peak Forward Surge Current at t _p < 10 ms	I _{FSM}	4	A
Power Dissipation	P _{tot}	200	mW
Thermal Resistance Junction to Ambient Air	R _{0JA}	625	°C/W
Junction Temperature	T _J	-55 to + 125	°C
Storage temperature range	T _{STG}	-55 to + 125	°C

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R = 100 μA (pulsed)	30	-	-	V
Peak Reverse Current	I _R	V _R = 25 V V _R = 25 V, T _J = 100 °C	-	-	0.5 100	μA
Forward Voltage Drop	V _F	I _F = 200 mA I _F = 10 mA I _F = 50 mA I _F = 2 mA I _F = 15 mA	- - - 0.26 -	- - - - -	1.00 0.40 0.65 0.33 0.45	V
Total Capacitance	C _T	V _R = 1 V, f = 1MHz	-	-	10	pF
Reverse Recovery Time	T _{rr}	I _F = 10mA, I _R = 10mA, I _{rr} = 1mA, R _L = 100 Ω	-	-	5	ns

RATING AND CHARACTERISTIC CURVES (BAT42WS - BAT43WS)

FIG.1 - FORWARD CURRENT DERATING CURVE

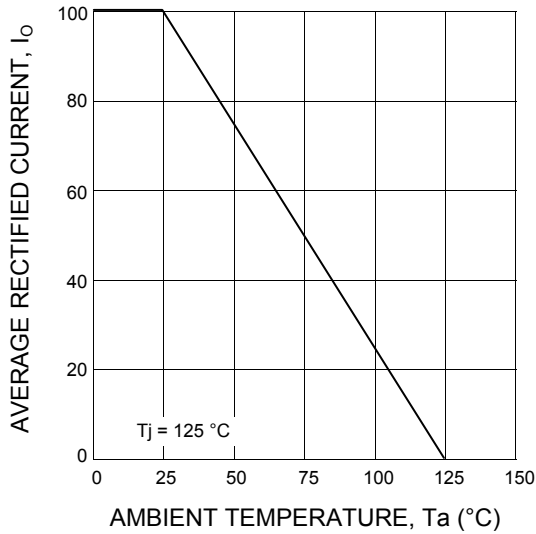


FIG2. - TOTAL CAPACITANCE VS. REVERSE VOLTAGE

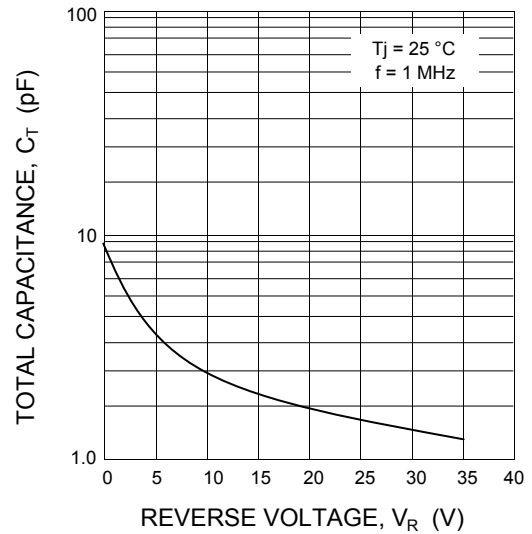


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

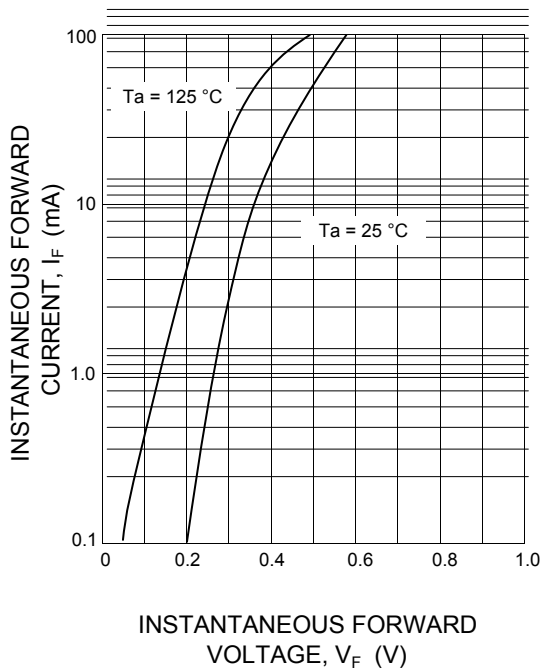


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

