WEITRON

BAT42WS
BAT43WS

Surface Mount Schottky Barrier Diode

Lead(Pb)-Free

SCHOTTKY DIODE
200mAMPERS
30VOLTS

Features:

* Low Forward Voltage Drop
* Fast Switching
* Ultra-Small Surface Mount Package

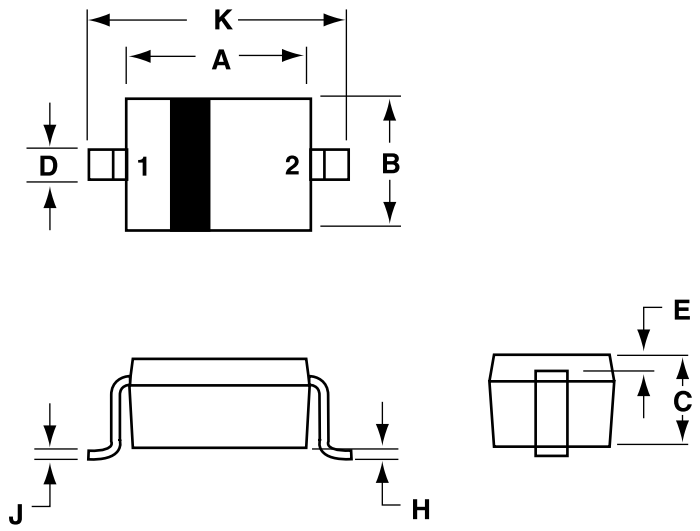
Mechanical Data:

* Case: SOD-323, Plastic
* Case Material-UL Flammability Rating Classification 94V-0
* Leads: Solderable per MIL-STD-202, Method 208
* Polarity: Cathode Band
* Weight: 0.004 grams(approx.)

SOD-323

SOD-323 Outline Demensions

Unit:mm



Dim	MILLMETERS	
	Min	Max
A	1.60	1.80
B	1.15	1.35
C	0.80	1.00
D	0.25	0.40
E	0.15 REF	
H	0.00	0.10
J	0.089	0.377
K	2.30	2.70

PIN 1.CATHODE
2.ANODE

Maximum Ratings (TA=25°C Unless otherwise noted)

Characteristic	Symbol	BAT42WS/BAT43WS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Average Rectified Output Current (1)	I_{FAV}	200	mA
Non-Repetitive Peak Forward Surge Current @ t <1.0ms	I_{FSM}	4.0	A
Power Dissipation	Pd	200	mW
Thermal Resistance junction to Ambient Air (1)	$R_{\theta JA}$	500	°C/W
Operating & Storage Temperature Range	T_J, T_{STG}	-55 to +125	°C

Electrical Characteristics (TA=25°C Unless otherwise noted)

Characteristic		Symbol	Min	Max	Unit
Reverse Breakdown Voltage I_R=100uA		$V_{(BR)R}$	30	-	V
Forward Voltage I_F=200mA I_F=10mA I_F=50mA I_F=2.0mA I_F=15mA	 Both Types BAT42WS BAT42WS BAT43WS BAT43WS	V_F	 - - - 0.26 -	 1.0 0.40 0.65 0.33 0.45	 V
Reverse Current VR=25V VR=25V, Tj=100°C		I_R	 - -	 500 100	 nAdc uAdc
Total Capacitance V_R=1.0V, f=1.0MHz		C_T	-	10	PF
Reverse Recovery Time I_F=I_R=10mA I_{rr}=0.1×I_R, R_L=100Ω		T_{rr}	-	5.0	ns

Note:

1. Parts Mounted on FR-4 PC Board with recommended pad layout.

Device Marking

Item	Marking	Eqivalent Circuit diagram
BAT42WS	S7	
BAT43WS	S8	

Electrical Characteristic curves(Ta=25 ℃)

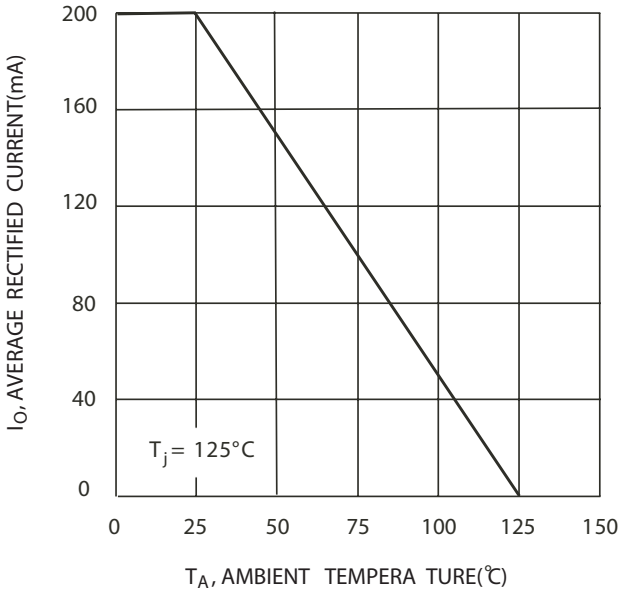


FIG. 1 Forward Current Derating Curve

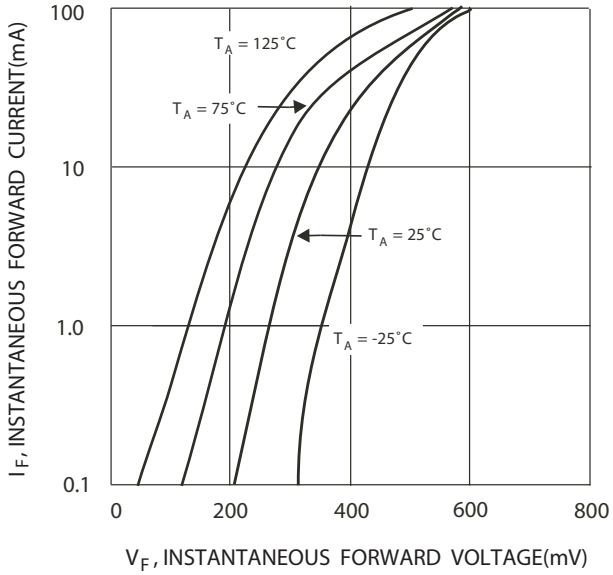


FIG. 2 Typical Forward Characteristics

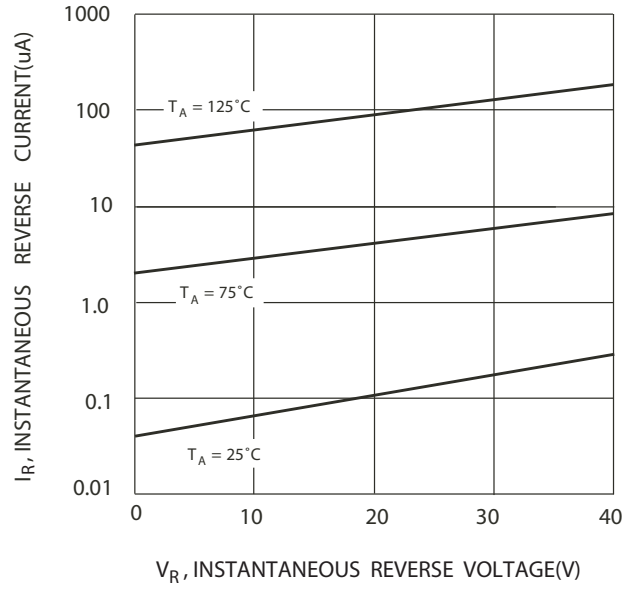


FIG. 3 Typical Reverse Characteristics

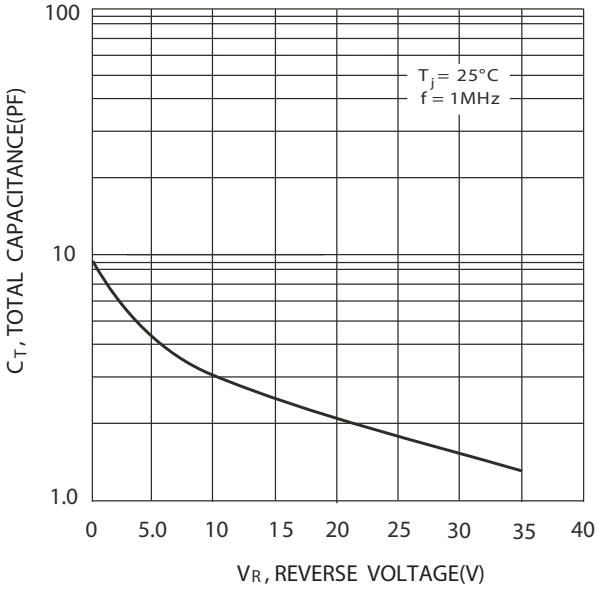


FIG. 4 Total Capacitance vs. Reverse Voltage