

Features

- Halogen Free. "Green" Device (Note 1)
- For General Purpose Applications
- These Diodes are Also Available in The DO-35 Case With The Type Designations BAT42 to BAT43 and in The MiniMELF Case With The Type Designations LL42 to LL43.
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 300°C/W Junction to Ambient Air⁽¹⁾

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
BAT42W	S7	30V	21V	30V
BAT43W	S8	30V	21V	30V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Forward DC Current	I _F	200mA	T _{amb} =25°C
Repetitive Peak Forward Current	I _{FRM}	500mA	tp<1s, T _{amb} =25°C ⁽²⁾
Surge Forward Current	I _{FSM}	4.0A	tp<10ms, T _j =25°C ⁽²⁾
Power Dissipation	P _{tot}	200mW	T _{amb} =65°C ⁽²⁾
Reverse Breakdown Voltage	V _{(BR)R}	30V(Min)	I _R =100µA dc Pulsed
Forward Voltage ⁽³⁾	V _F	1.0V(Max)	I _F =200mA
BAT42W		0.4V(Max)	I _F =10mA
		0.65V(Max)	I _F =50mA
BAT43W		0.26V(Min)	I _F =2.0mA
		0.33V(Max)	
		0.45V(Max)	I _F =15mA
Leakage Current ⁽³⁾	I _R	0.5µA(Max) 100µA(Max)	V _R =25V V _R =25V, T _J =100°C
Typical Junction Capacitance	C _{tot}	7.0pF(Typ)	V _R =1.0, f=1.0MHz
Reverse Recovery Time	t _{rr}	5.0ns(Max)	I _F =10mA, I _R =10mA I _{rr} =1.0mA, R _L =100Ohm

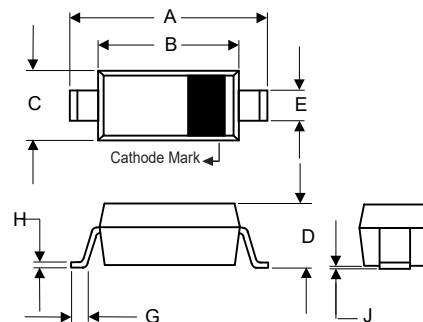
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Notes: 2. Valid provided that electrodes are kept at ambient temperature

Notes: 3. Pulse Test tp<300us, Duty Cycle<2%

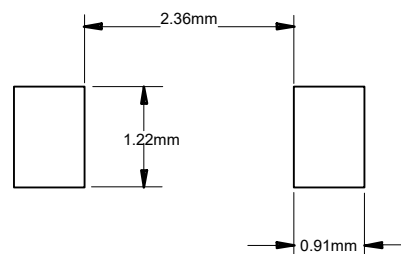
**200mW
Schottky Diodes
30 Volts**

SOD-123



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.140	0.152	3.55	3.85	
B	0.100	0.112	2.55	2.85	
C	0.055	0.071	1.40	1.80	
D	----	0.053	----	1.35	
E	0.018	0.026	0.45	0.65	
G	0.006	----	0.15	----	
H	----	0.010	----	0.25	
J	----	0.006	----	0.15	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Characteristics

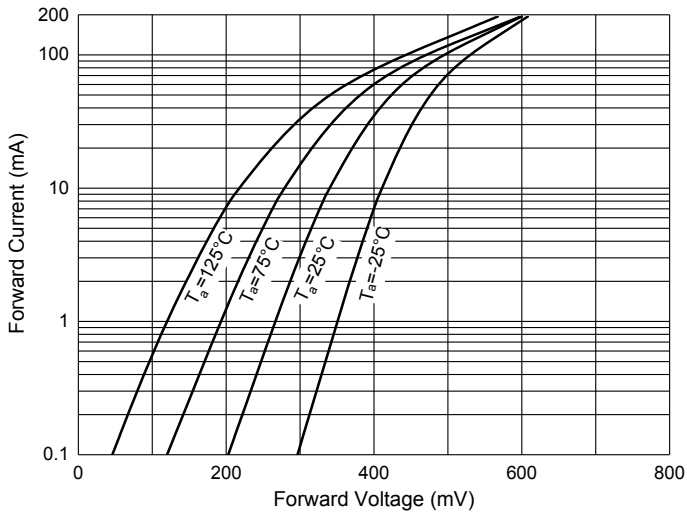


Fig. 2 - Reverse Characteristics

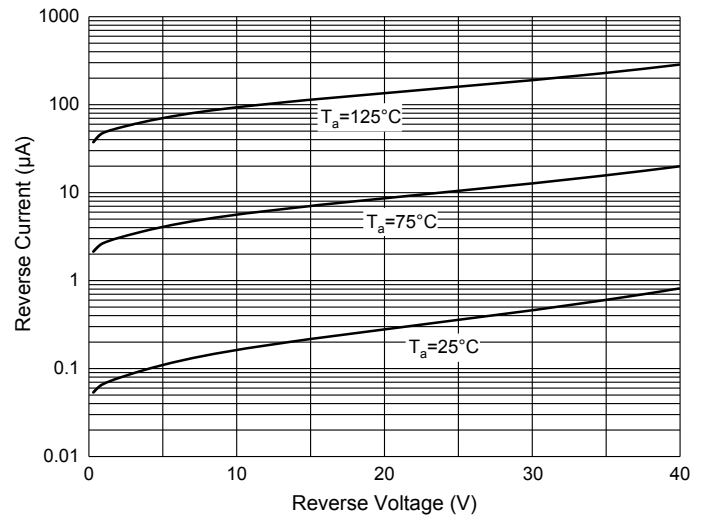


Fig. 3 - Capacitance Characteristics

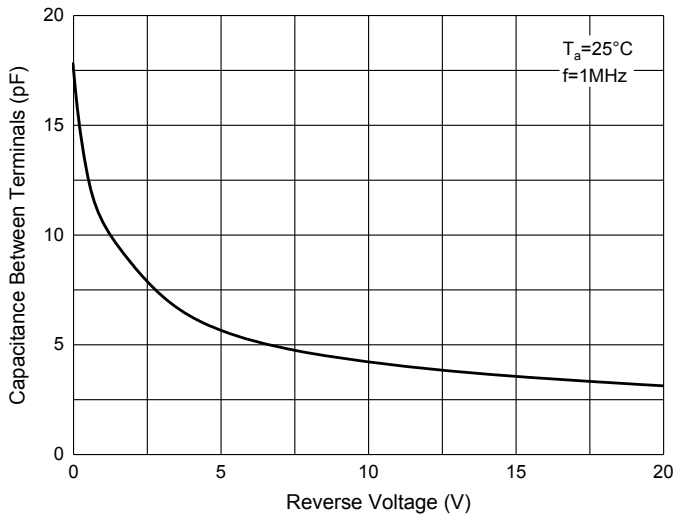
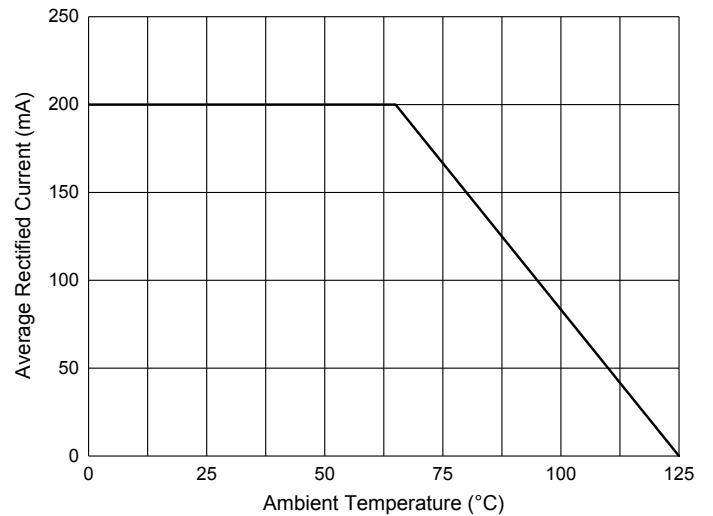


Fig. 4 - Forward Current Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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