

Technical Data

Green Products

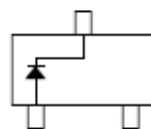
Data Sheet N0027, Rev. A

Features

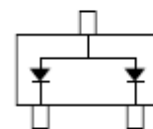
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Both normal and Pb free product are available:
Normal:80~95% Sn, 5~20% Pb
Pb free:98.5% Sn above
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Data

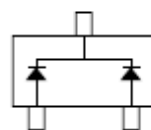
- Case: SOT-323, Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Weight: 0.0052 grams (approx.)



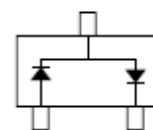
SINGLE



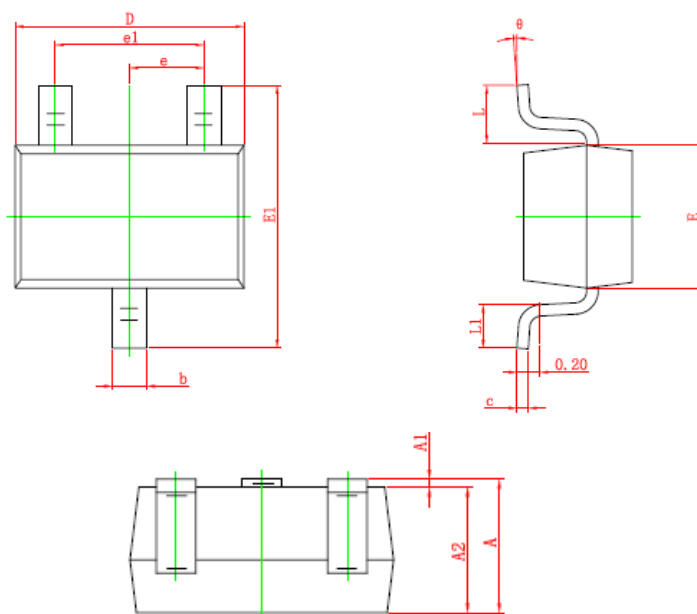
COMMON ANODE



COMMON CATHODE



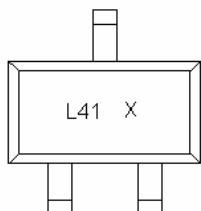
SERIES



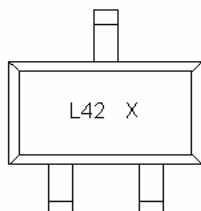
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

SOT-323

Marking Diagram:



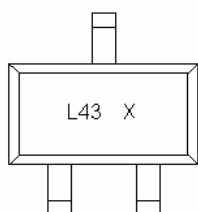
BAT54W



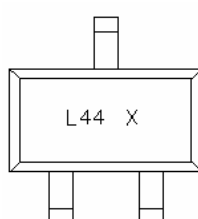
BAT54AW

Where X is Date Code

L41/L42/L43/L44 = Part Name



BAT54CW



BAT54SW

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
BAT54W/AW/CW/SW	SOT-323(Pb-Free)	3000pcs / reel

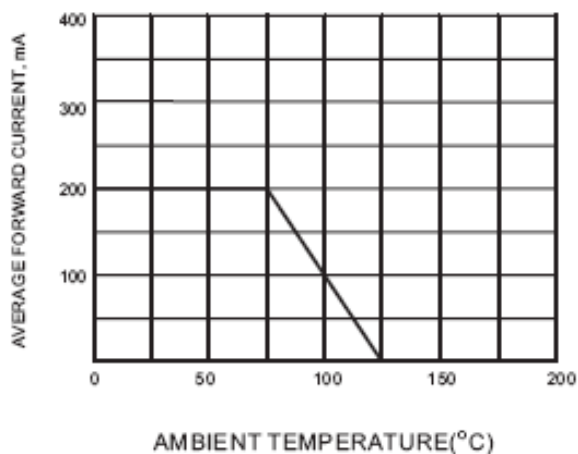
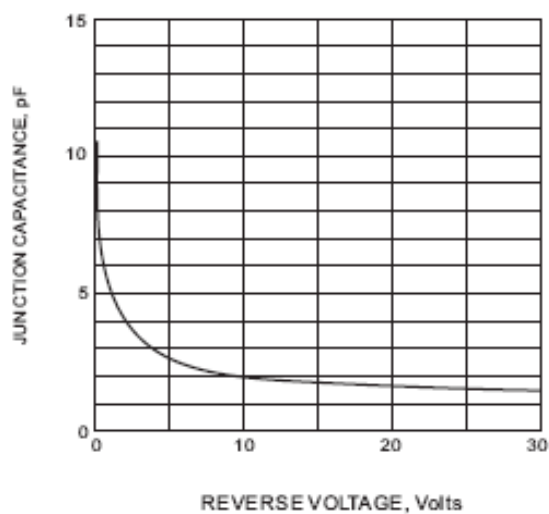
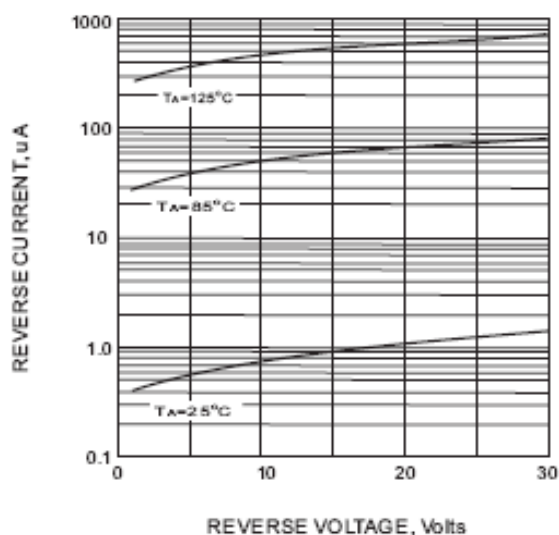
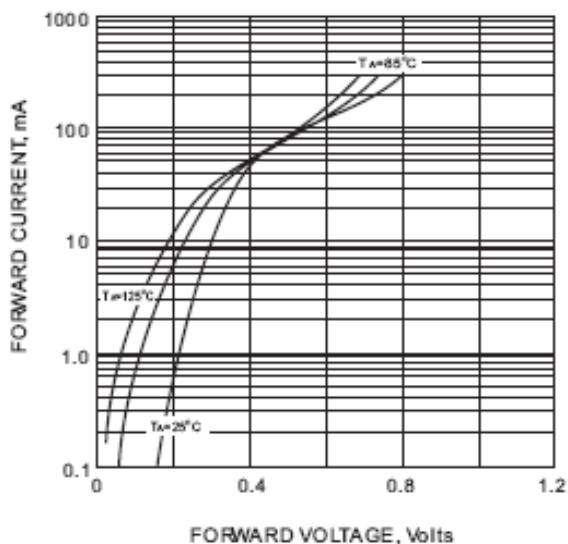
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

Characteristic	Symbol	BAT54W	BAT54AW	BAT54CW	BAT54SW	Unit
Marking code		L41	L42	L43	L44	
Peak Repetitive Reverse Voltage	V_{RRM}	30				V
Average Rectified Output Current at $T_a = 75^\circ\text{C}$	I_o	200				mA
Maximum Instantaneous Forward Voltage @ $I_F = 1\text{mA}$ @ $I_F = 100\text{mA}$	V_F	0.32 1.0				V
Maximum DC Reverse Current at Rated DC Blocking voltage @ $V_R = 25\text{V}$	I_R	2.0				μA
Peak Forward Surge Current, 1.0s (JEDEC method)	I_{FSM}	600				mA
Junction Capacitance at $V_R = 1\text{V}$	C_j	10				pF
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	635				$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +125				$^\circ\text{C}$
Circuit Figure	-	Single	Common Anode	Common Anode	Series	-



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AMEYA360

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