

**Feature**

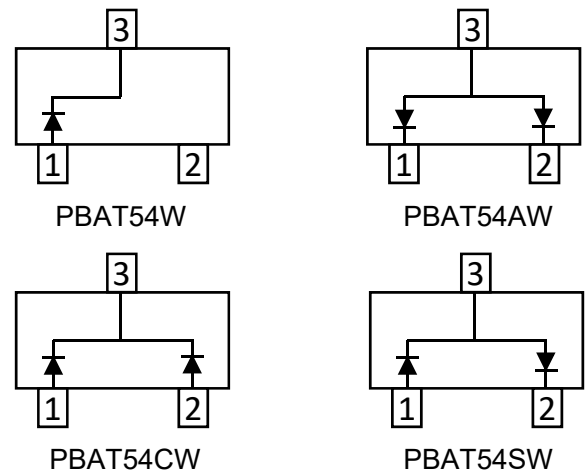
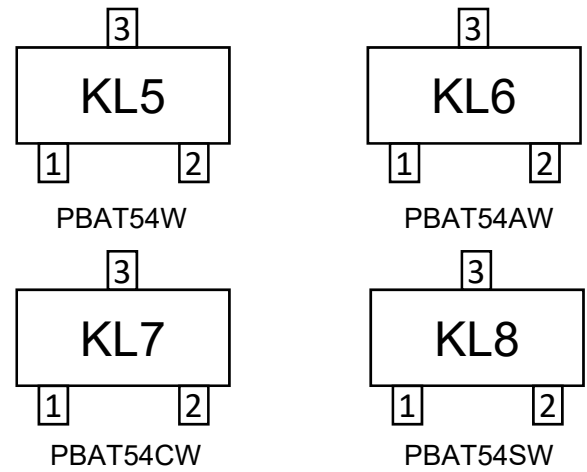
- Low Profile Package
- Ideal for Automated Placement
- Ultrafast Reverse Recovery Time
- Low Power Losses, High Efficiency
- Low Forward Voltage Drop
- High Surge Capability
- RoHS Compliant

**Applications**

- Low Voltage
- High-Frequency Inverters
- Free Wheeling
- Polarity Protection

**Mechanical Characteristics**

- Package: SOT-323
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020

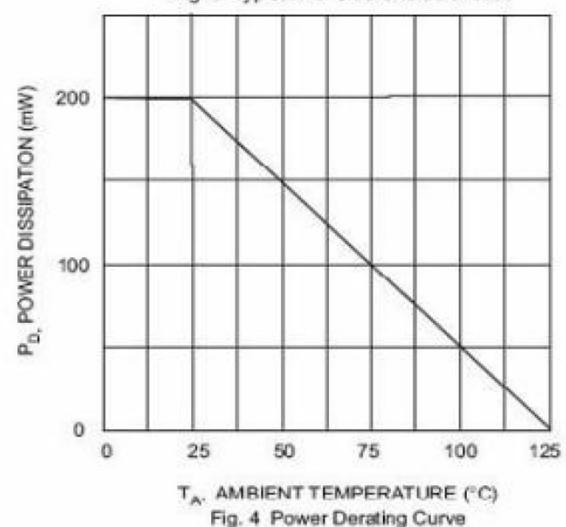
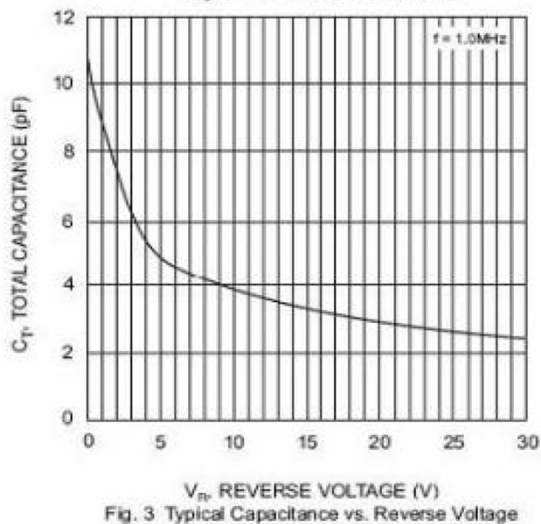
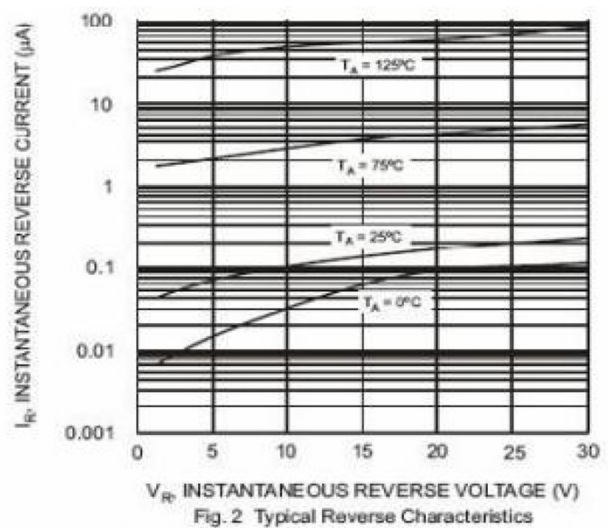
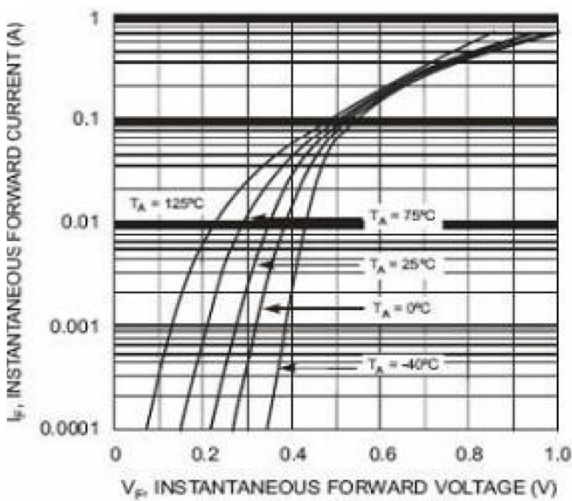

**Circuit Diagram**

**Marking**
**Maximum Ratings and Thermal Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise noted)**

Parameter	Symbol	Value	Units
Reverse Voltage (Repetitive Peak)	$V_{RRM}$	30	V
Reverse Voltage (RMS)	$V_{R(RMS)}$	24	V
DC Blocking Voltage	$V_R$	30	V
Forward Continuous Current	$I_{FM}$	200	mA
Power Dissipation	$P_D$	200	mW
Thermal Resistance Junction to Ambient (Typ.)	$R_{\theta JA}$	230	$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	-55 ~ +125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

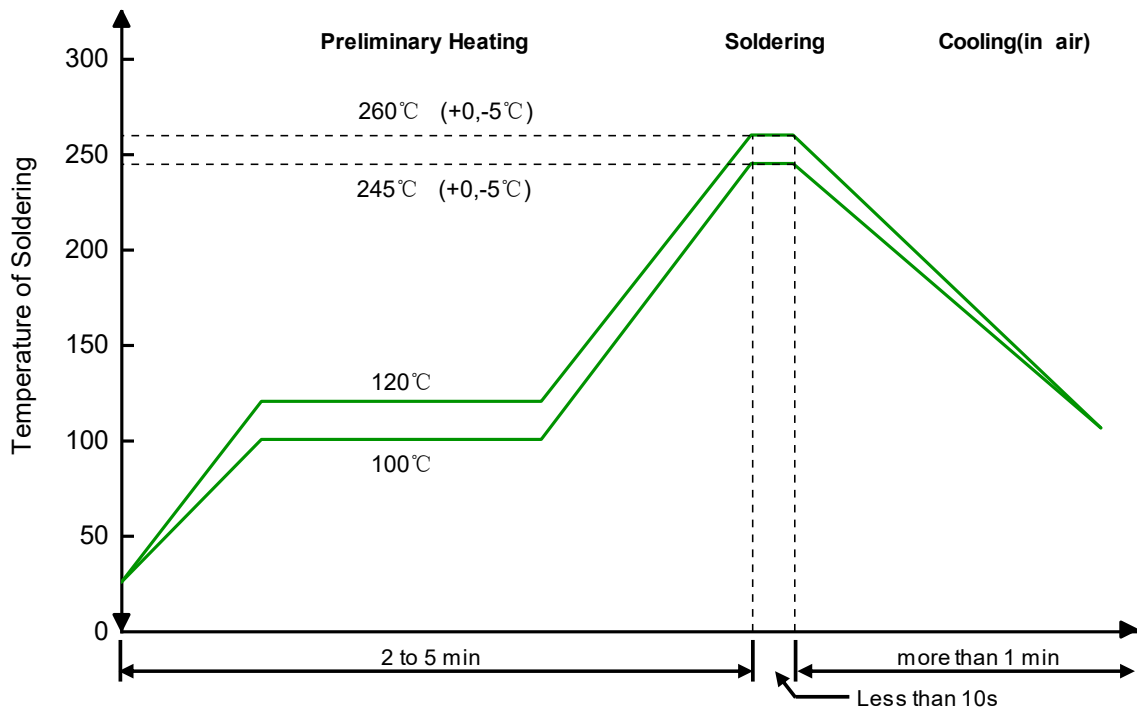
## Electrical characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	$V_{BR}$	$I_R=100\mu A$	30			V
Forward Voltage	$V_F$	$I_F = 0.1mA$	-	-	0.24	V
		$I_F = 1mA$	-	-	0.32	
		$I_F = 10mA$	-	-	0.4	
		$I_F = 30mA$	-	-	0.5	
		$I_F = 100mA$	-	-	1.0	
Reverse Current	$I_R$	$V_R = 25V$	-	-	2.0	$\mu A$
Reverse Recovery Time	$T_{rr}$	$I_F = I_R = 10mA$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$	-	-	5	nS

## Typical Characteristics



## Solder Reflow Recommendation

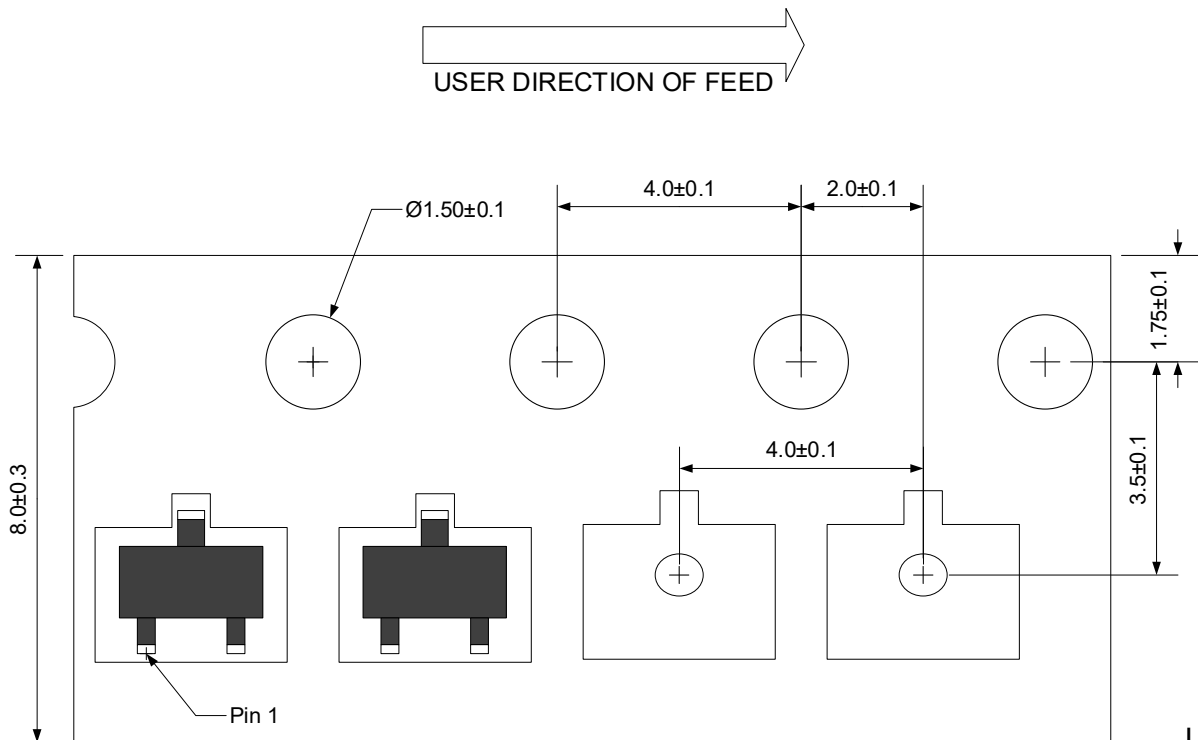


Remark: Pb free for 260°C; Pb for 245°C.

## Ordering information

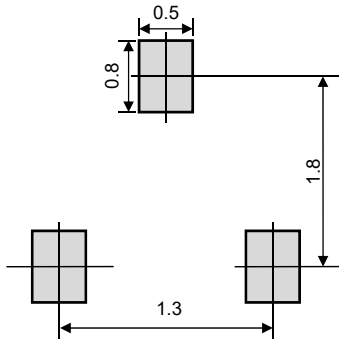
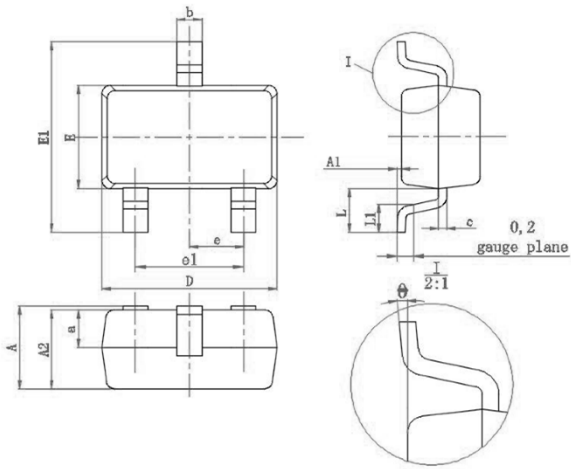
Package	Reel	Shipping
SOT-323	7"	3000 / Tape & Reel

## Load with information



Unit:mm

## Product Dimension (SOT-323)




Suggested PCB Layout

Unit: mm

Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	0.90	1.10	0.035	0.043
A1	0.00	0.10	0.000	0.004
A2	0.90	1.00	0.035	0.039
a	0.45		0.018	
D	2.00	2.20	0.079	0.087
E	1.15	1.35	0.045	0.053
E1	2.15	2.45	0.085	0.096
e	0.65		0.026	
e1	1.20	1.40	0.047	0.055
b	0.25	0.35	0.010	0.014
c	0.08	0.15	0.003	0.006
L	0.525		0.021	
L1	0.26	0.46	0.010	0.018
$\theta$	0°	8°	0°	8°


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