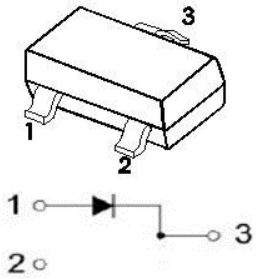
SOT-323 贴片塑封肖特基二极管

SOT-323 Plastic-Encapsulate Schottky Barrier Diode

SOT-323



MARKING:KL5

Features

- Extremely Fast Switching Speed
- Low Forward Voltage Drop
- Low capacitance

Mechanical Data

- SOT-323 Small Outline Plastic Package
- Eproxy UL:94V-0
- Mounting Position: Any
- Device meets MSL 1 requirements

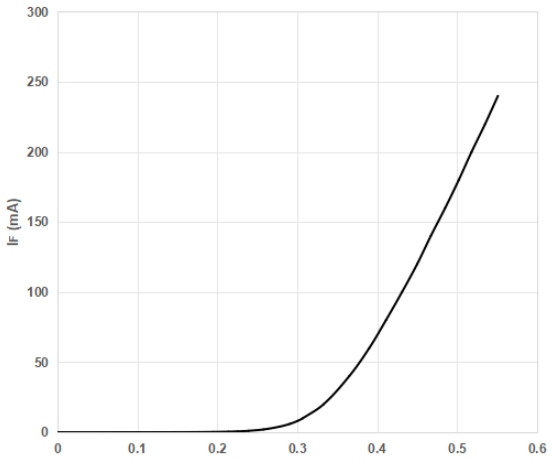
Maximum Ratings & Thermal Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Rreverse Voltage	V_R	30	V
Forward Continuous Current	I_{FM}	200	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I_{FSM}	600	mA
Repetitive Peak Forward Current @ t≤1s,δ≤0.5	I_{FRM}	300	mA
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	500	℃/W
Junction Temperature	T_j	125	℃
Storage Temperature Range	T_{stg}	-55 to +150	℃

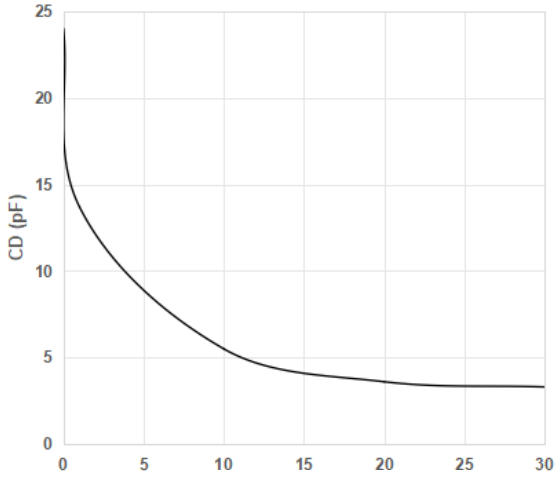
Electrical Characteristics(T_A=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Voltage	V_{BR}	30	--	--	V	IR=100μA
Forward voltage	V_F	--	--	0.24	V	I_F=0.1mA
		--	--	0.32	V	I_F=1.0mA
		--	--	0.40	V	I_F=10mA
		--	--	0.50	V	I_F=30mA
		--	--	1.00	V	I_F=100mA
Reverse current	I_R	--	--	2.0	μA	V_R=25V
Diode capacitance	C_D	--	14	--	pF	V_R=1V,f=1MHz
Reverse recovery time	t_{rr}	--	--	6	nS	I_F=I_R=10mA I_{rr}=0.1×I_R,R_L=100Ω

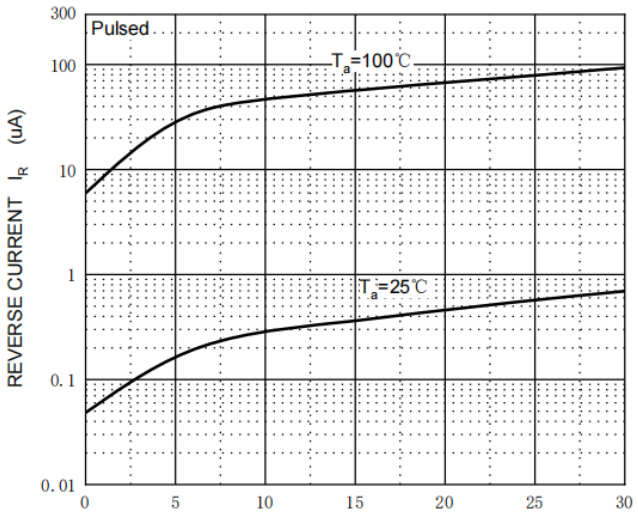
Typical Performance Characteristics (TA=25℃ unless otherwise Specified)



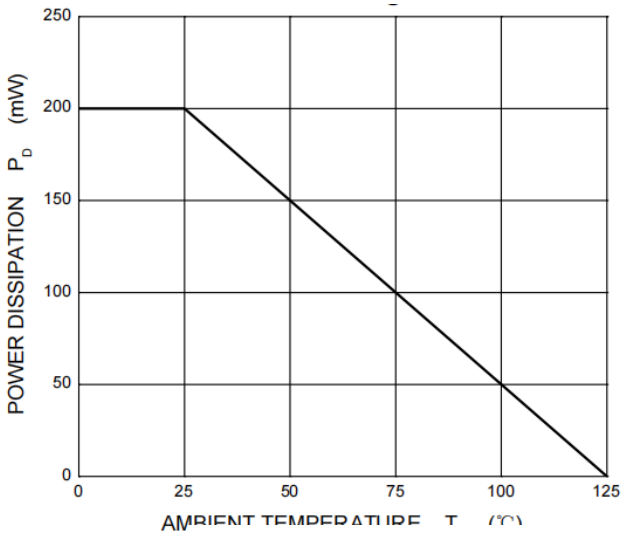
Forward Characteristics



Capacitance Characteristics

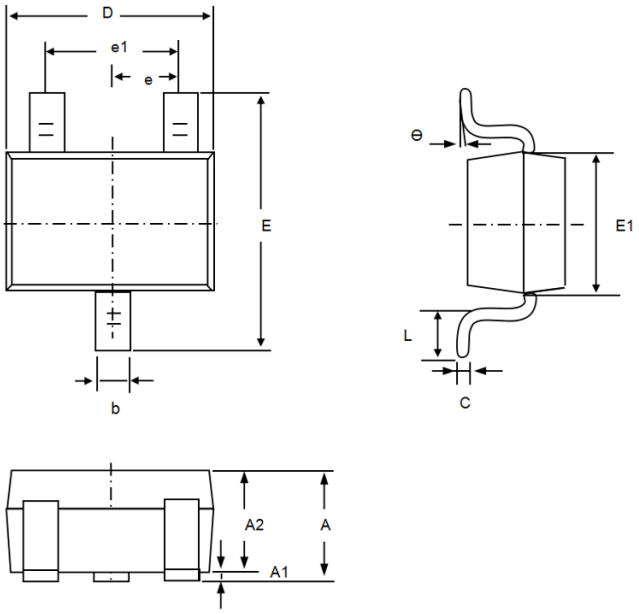


Reverse Characteristics



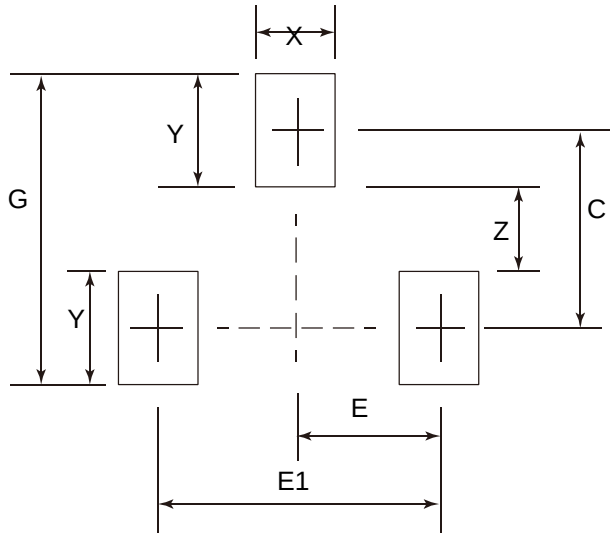
Power Derating Curve

SOT-323 Package Outline Drawing



Symbol	Dimensions (mm)		
	Min	Typ	Max
A	0.90	1.00	1.10
A1	0.00	0.05	0.10
A2	0.90	0.95	1.00
b	0.15	0.25	0.35
c	0.08	0.12	0.15
D	1.80	2.00	2.20
E	2.15	2.25	2.35
E1	1.15	1.25	1.35
e		0.650 Typ	
e1	1.20	1.30	1.40
L	0.25	0.30	0.40
θ	0°	4°	8°

Suggested Land Pattern



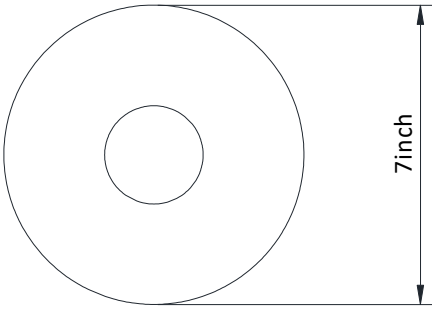
SYM	DIMENSIONS	
	MILLIMETERS	INCHES
C	2.2	0.087
E	0.65	0.026
E1	1.30	0.051
G	2.60	0.102
X	0.50	0.020
Y	0.80	0.031
Z	1.4	0.055

Ordering Information

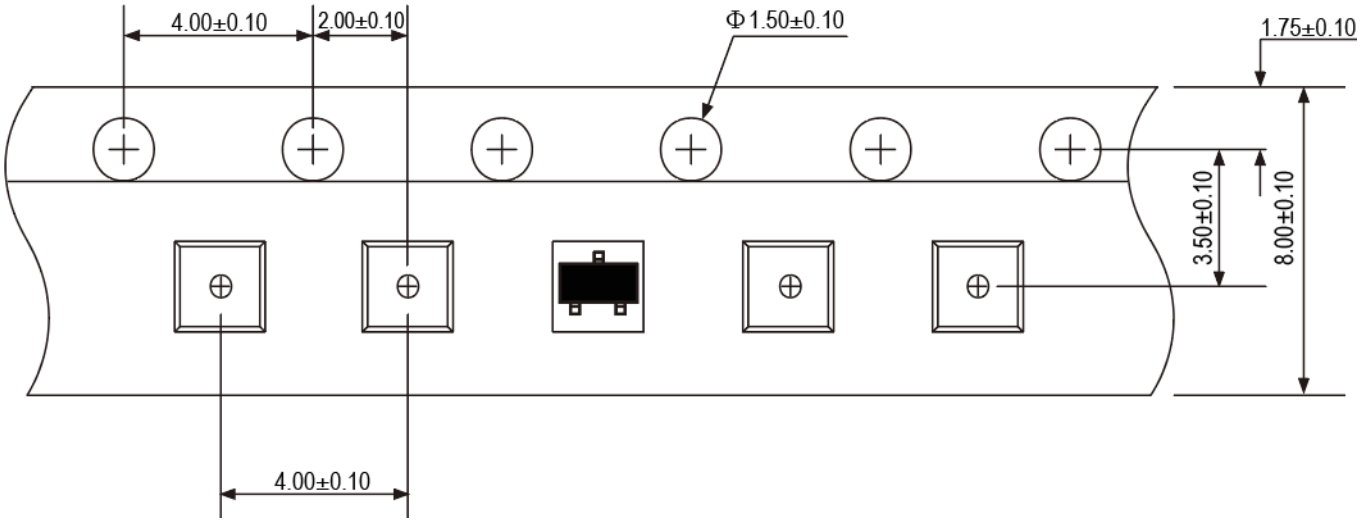
Part Number	Shipping	Reel Size
BAT540W	3000/Tape &Reel	7 inch

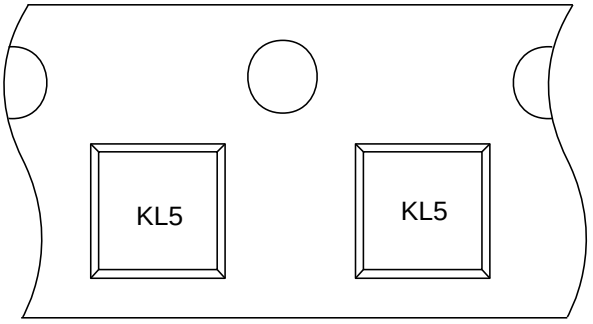
TAPE AND REEL INFORMATION

Reel Dimensions



Tape Dimensions





User Direction of Feed

IMPORTANT NOTICE

The information given in this document is believed to be accurate and reliable but shall in no event be regarded as a guarantee of conditions or characteristics.PN-Silicon assumes no responsibility for any errors in this document, or for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of PN-Silicon.

The product listed in this document are designed to be used with ordinary electronic equipment or devices and are not authorized to used with equipment or devices which require an extremely high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, aerospace machinery, nuclear-reactor controllers, automotive and other safety device.)

The PN SILICON logo is a registered trademark of PN-Silicon co., ltd which reserves the right to make changes to the product or this document at any time without notice. Buyers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. PN-Silicon makes no warranty, representation or guarantee, express or implied, regarding the suitability of its products for any particular purpose. All rights reserved.