TECH PUBLIC
台舟电子

TPBAT54W
Schottky barrier diode

www.sot23.com.tw

Features

- Extremely Fast Switching Speed
- Low forward voltage

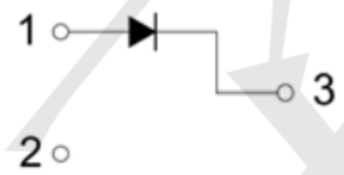
Ordering Information

- Shipping Qty:3000/7inch Tape& Reel

SOT-323



Circuit Diagram



Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

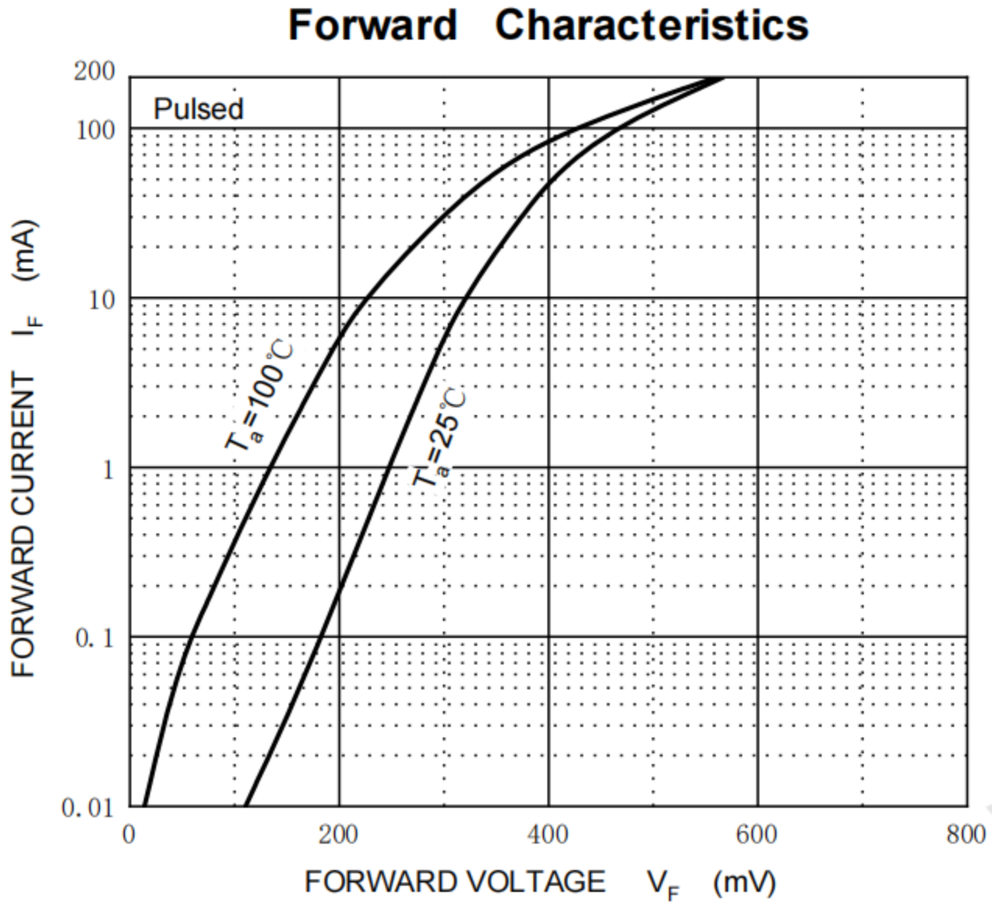
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
Forward Continuous Current	I_{FM}	200	mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	600	mA
Repetitive Peak Forward Current @ t≤1s, δ ≤0.5	I_{FRM}	300	mA
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\Theta JA}$	500	℃/W
Operating Junction Temperature Range	T_j	-40 ~ +125	℃
Storage Temperature Range	T_{stg}	-55 ~ +150	℃

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

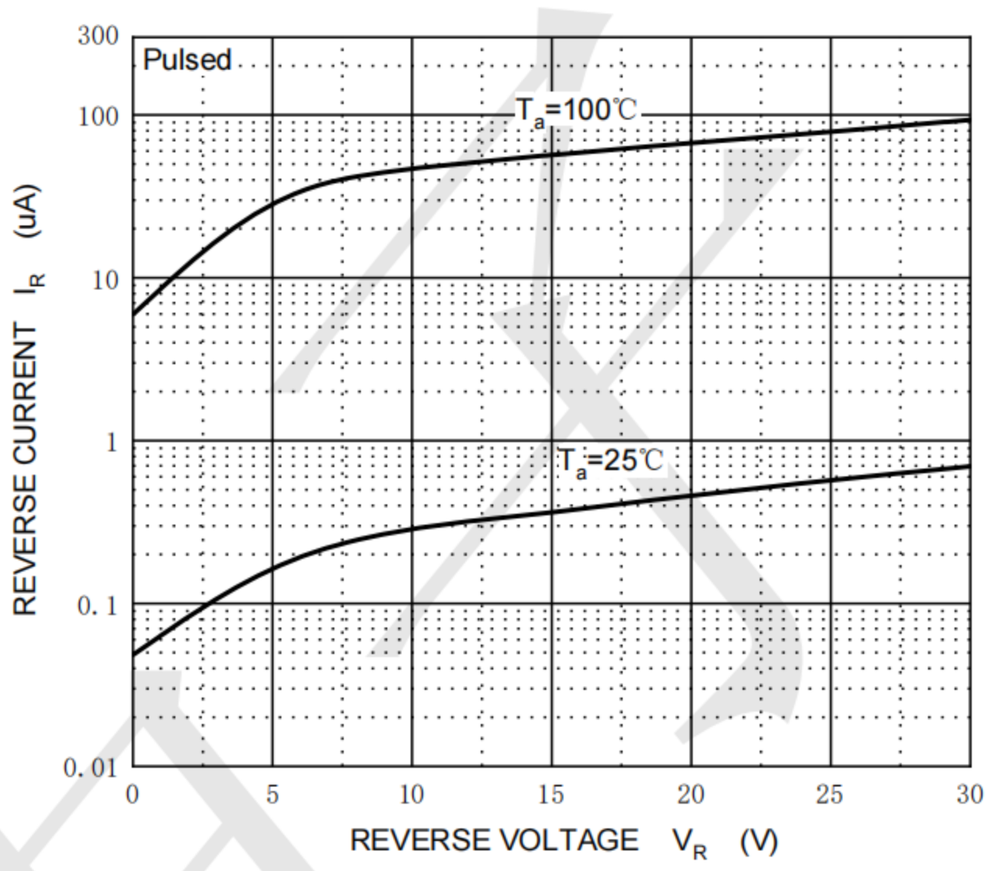
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	I_R=100μA	30			V
Reverse current	I_R	V_R=25V			2	μA
Forward voltage	V_F	I_{F1}=0.1mA			0.24	V
		I_{F2}=1mA			0.32	V
		I_{F3}=10mA			0.40	V
		I_{F4}=30mA			0.50	V
		I_{F5}=100mA			1	V
Diode capacitance	C_D	V_R=1V,f=1MHz			10	pF
Reverse recovery time	t_{rr}	IF=IR=10mA Irr=0.1×IR,RL=100Ω			5	ns

Typical Electrical Characteristic Curves

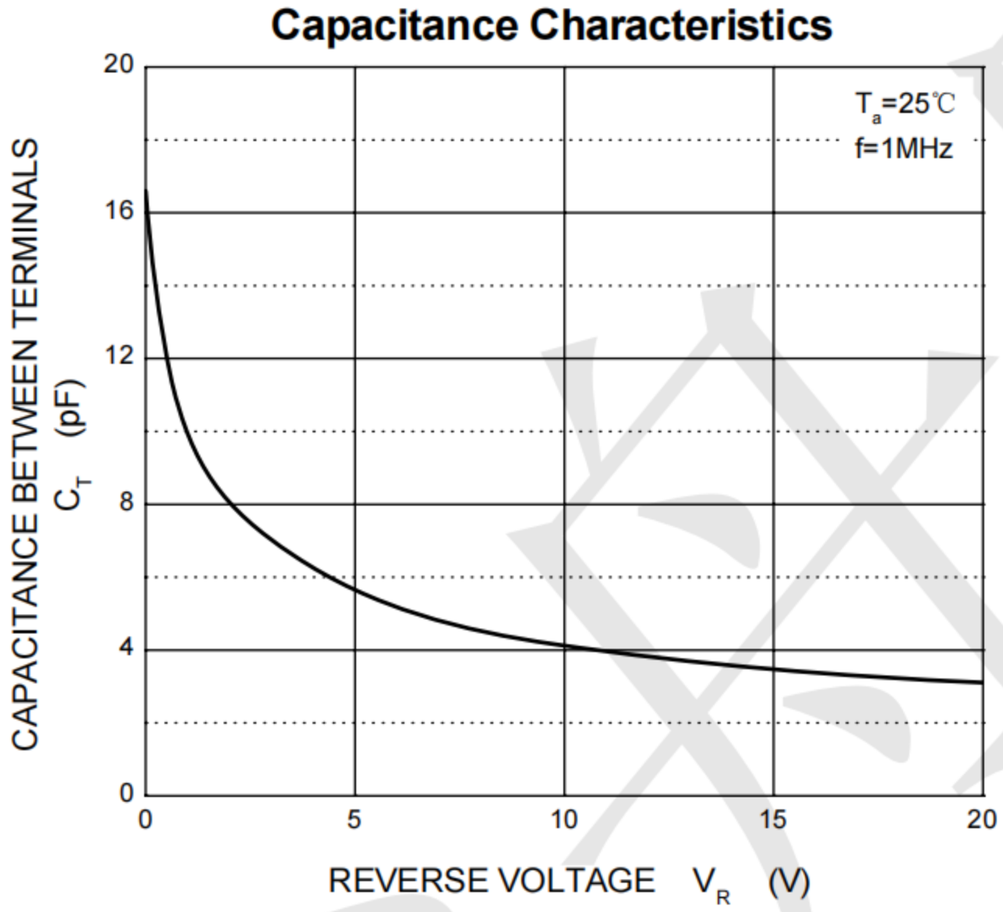
Forward Characteristics



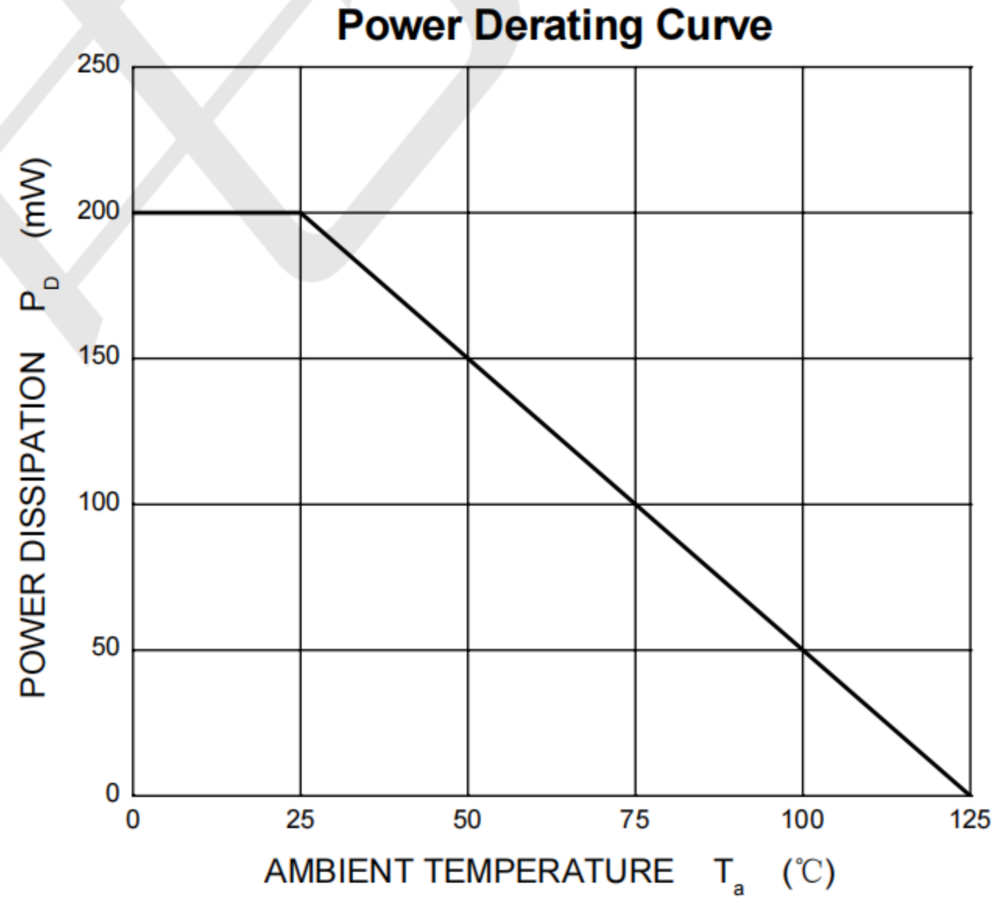
Reverse Characteristics



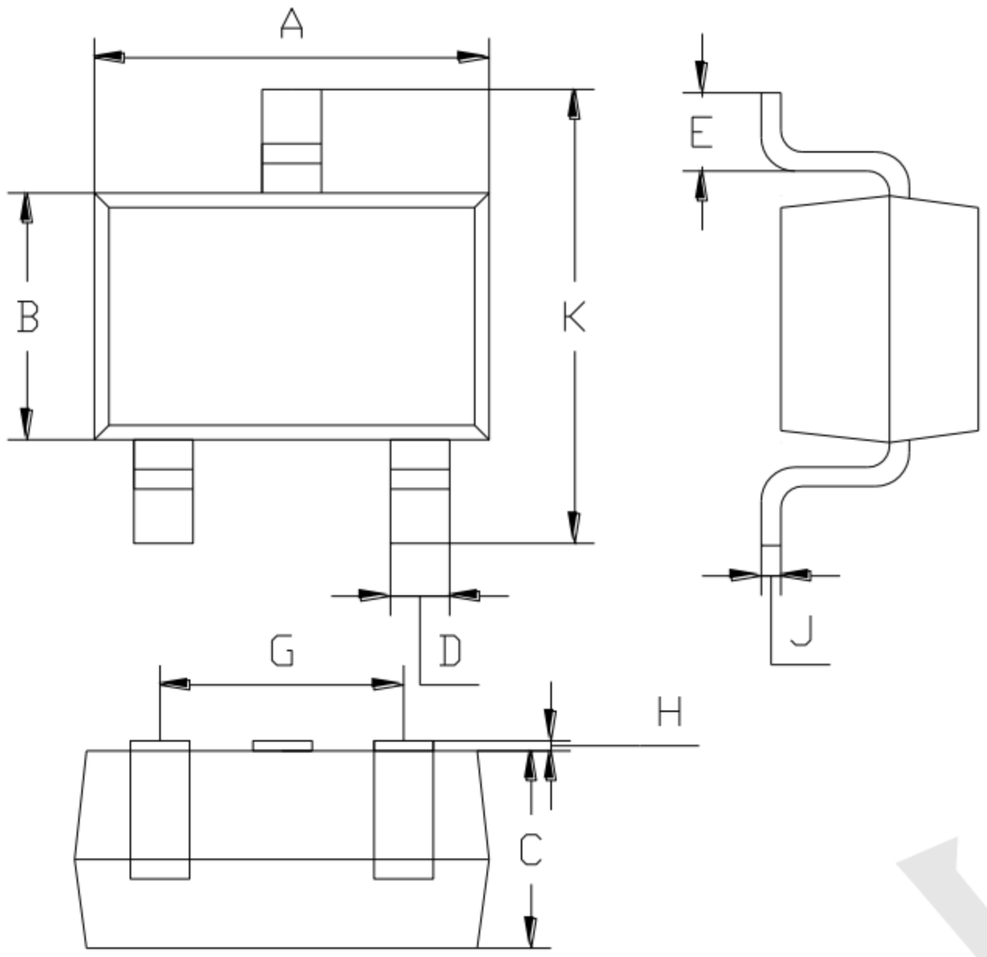
Capacitance Characteristics



Power Derating Curve



Outline Drawing - SOT-323 (unit: mm)



SOT-323		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	0.25	0.40
G	1.20	1.40
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout-SOT323(unit: mm)

