TECH PUBLIC
台舟电子

TPBAT54/ TPBAT54A/TPBAT54C/TPBAT54S

Schottky barrier diode

www.sot23.com.tw

Features

- Fast switching
- Low turn-on voltage
- PN junction guard ring for transient and ESD protection
- Avaiable in lead free version.

Mechanical Data

- Case: SOT-23
- Terminals: solderable per MIL-STD-202, Method 208

HF

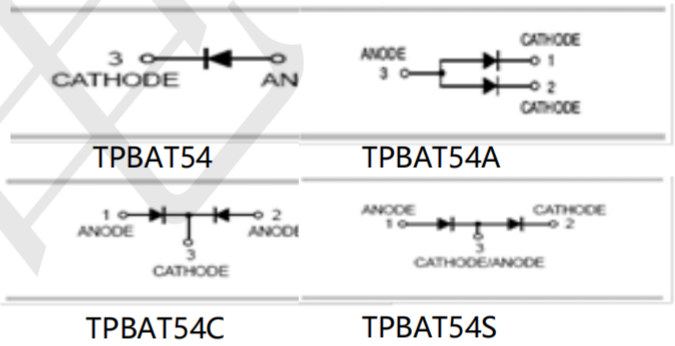
Applications

- surface mount schottky barrier rectifier

Ordering Information

- Shipping Qty:3000/7inch Tape& Reel





TPBAT54 TPBAT54A

TPBAT54C TPBAT54S

Ordering Information

Part Number	Package	Shipping	Marking Code
TPBAT54	SOT-23	3000 pcs / Tape & Reel	KL1
TPBAT54A	SOT-23	3000 pcs / Tape & Reel	KL2
TPBAT54C	SOT-23	3000 pcs / Tape & Reel	KL3
TPBAT54S	SOT-23	3000 pcs / Tape & Reel	KL4

Maximum Ratings (@T_A=25°C unless otherwise specified)

Parameter	Symbol	Limits	Unit
Peak Repetitive Peak reverse voltage Working Peak Reverse Voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	30	V
Forward Continuous Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Forward surge current@tp<1s	I_{FSM}	600	mA

Thermal Characteristics

Parameter	Symbol	Limits	Unit
Power Dissipation *	P_D	250	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	500	°C /W
Thermal resistance junction to case	$R_{\theta JC}$	360	°C /W
Junction temperature	T_J	-55 to +125	°C
Storage temperature range	T_{STG}	-55 to +150	°C

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R=100μA	30	-	-	V
Forward voltage *1	V_F	I_F=0.1mA	-	-	0.24	V
		I_F=1mA	-	-	0.32	V
		I_F=10mA	-	-	0.40	V
		I_F=30mA	-	-	0.50	V
		I_F=100mA	-	-	0.8	V
Reverse current *2	I_R	V_R=25V	-	-	2	μA
Capacitance Between Terminals	C_T	V_R=1V,f=1MHz	-	-	10	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA I_{rr}=0.1XI_R,R_L=100Ω	-	-	5	ns

*1: pulse test,tp≤300μs
*2: pulse test,tp≤5ms

Ratings and Characteristic Curves (@T_A=25°C unless otherwise specified)

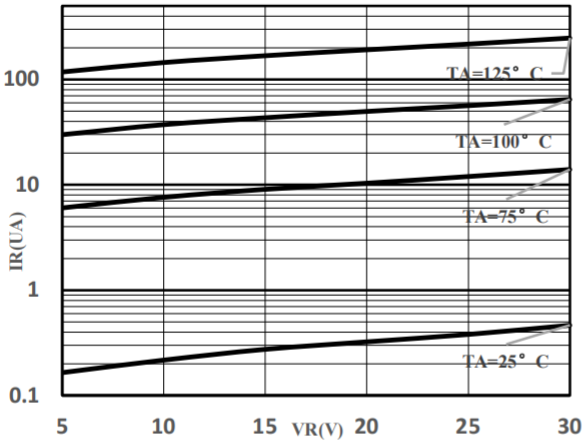


Fig 1 Typical Reverse Characteristic

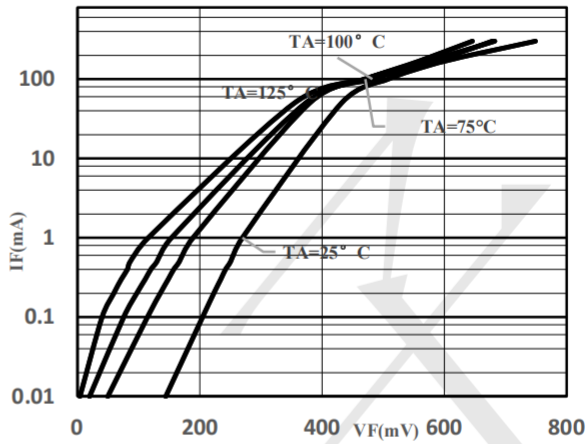


Fig 2 Typical Forward Characteristics

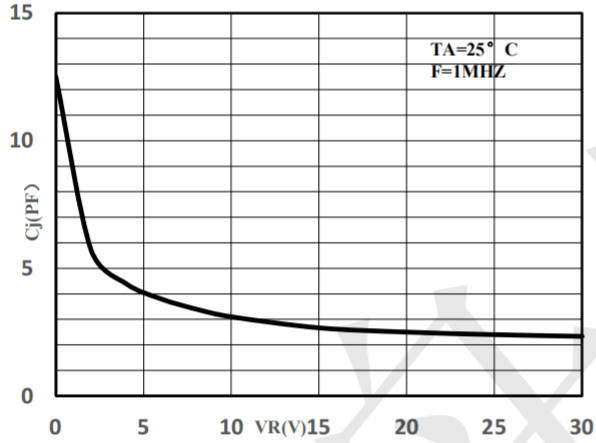


Fig 3 Capacitance Characteristics

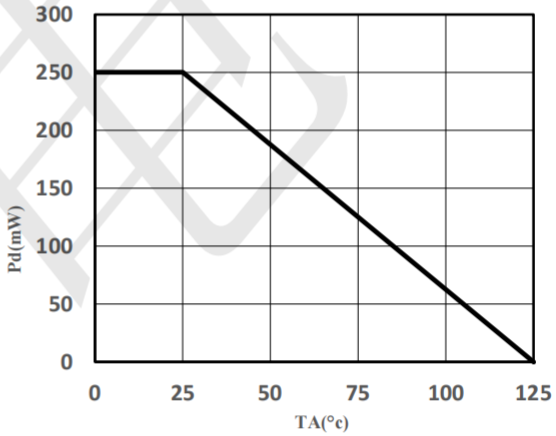
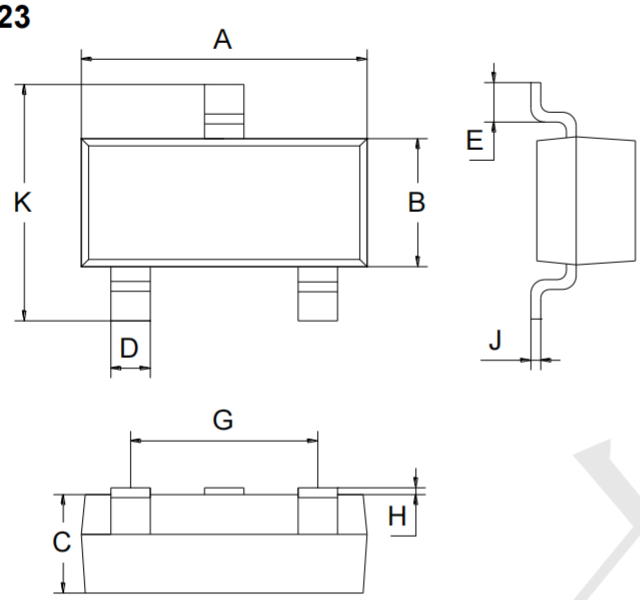


Fig 4 Derating Curve

Package Outline Dimensions (unit: mm)

SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

Mounting Pad Layout (unit: mm)

SOT-23

