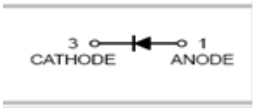
Small Signal Schottky Barrier Diode

TBAT64/-04/-05/-06

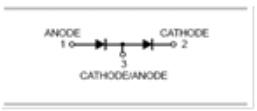
Features

- For low-loss, fast-recovery, Meter protection, bias isolation And clamping application
- Low forward voltage
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

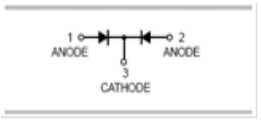
HF



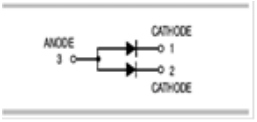
TBAT64



TBAT64-04



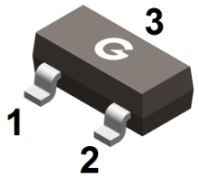
TBAT64-05



TBAT64-06

Mechanical Data

- Case: SOT-23
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208



SOT-23

Ordering Information

Part Number	Package	Shipping	Marking Code
TBAT64	SOT-23	3000 pcs / Tape & Reel	63
TBAT64-04	SOT-23	3000 pcs / Tape & Reel	64
TBAT64-05	SOT-23	3000 pcs / Tape & Reel	65
TBAT64-06	SOT-23	3000 pcs / Tape & Reel	66

Maximum Ratings(@T_A=25℃unless otherwise specified)

Parameter	Symbol	Limits	Unit
Diode Reverse Voltage	V_R	40	V
Forward Current	I_F	250	mA
Non-Repetitive Peak Surge Forward Current	I_{FSM}	800	mA
Average Rectified Forward Current(50/60Hz,sinus)	I_{FAV}	120	mA

Thermal Characteristics

Parameter	Symbol	Limits	Unit
Power Dissipation	P_D	350	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$*	286	℃/W
Operating Junction Temperature Range	T_J	-55 to +150	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃
* Part mounted on FR-4 board with recommended pad layout			

Electrical Characteristics(@T_A=25℃ unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R=10mA	40	-	-	V
Forward Voltage *1	V_F	I_F=1mA	0.23	0.32	0.35	V
		I_F=10mA	0.30	0.385	0.43	
		I_F=30mA	0.36	0.44	0.52	
		I_F=100mA	0.47	0.57	0.75	
Reverse Leakage Current *2	I_R	V_R=30V	-	-	2	uA
Capacitance BetweenTerminals	C_T	V_R=1V,f=1MHz	-	-	10	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA Irr=1.0mA,R_L=100Ω	-	-	5	ns

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

Ratingsand Characteristic Curves(T_A=25℃unless otherwise noted)

FIG 1.TYPICAL REVERSE CHARACTERISTIC

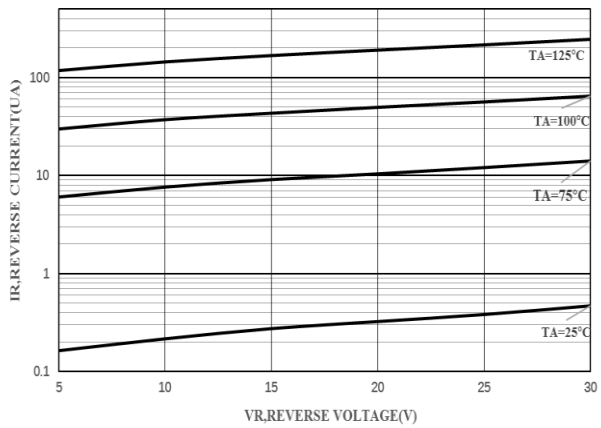


FIG 2.TYPICAL FORWARD CHARACTERISTIC

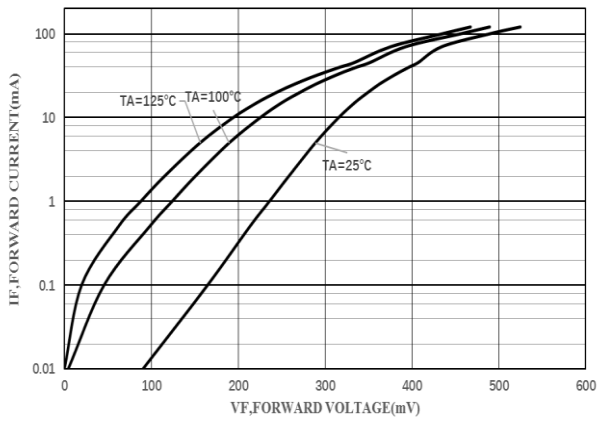


FIG 3.CAPACITANCE VS REVERSE VOLTAGE

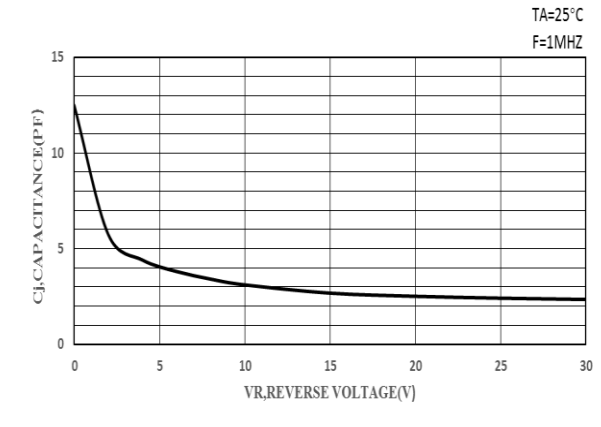
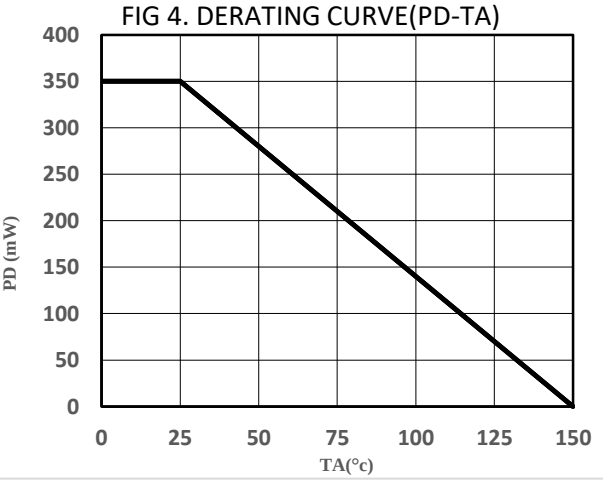
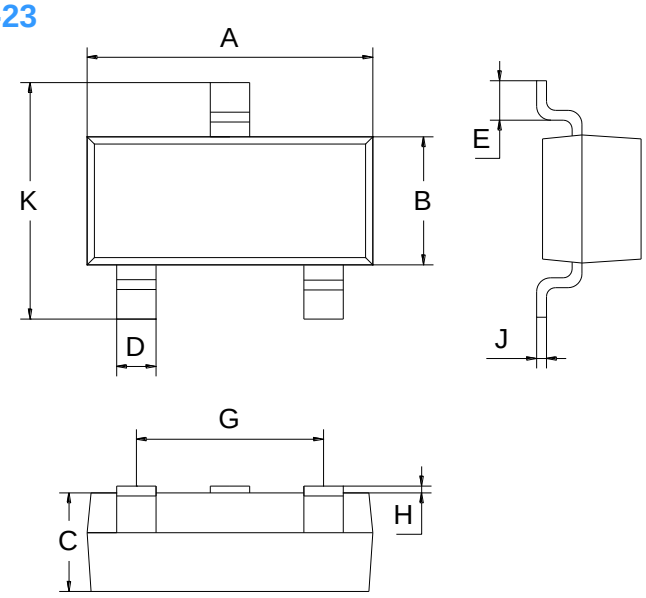


FIG 4. DERATING CURVE(PD-TA)



Package Outline Dimensions (unit: mm)

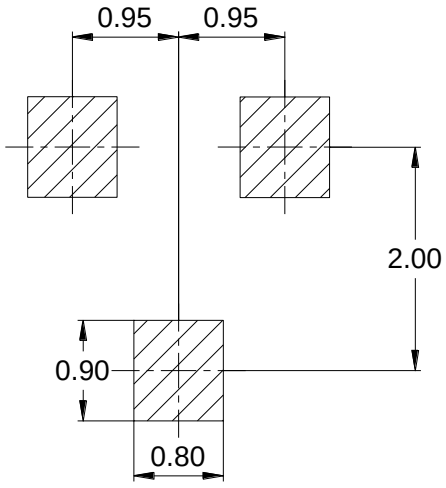
SOT-23



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



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