

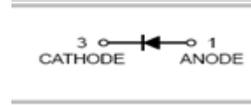
Features

- For low-loss, fast-recovery, Meter protection, bias isolation And clamping application
- Low forward voltage

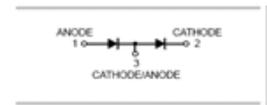
HF

Mechanical Data

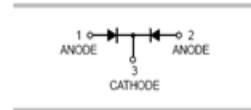
- Case: SOT-23
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208



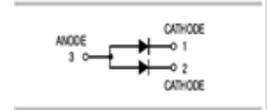
BAT64



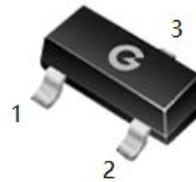
BAT64-04



BAT64-05



BAT64-06



SOT-23

Ordering Information

Part Number	Package	Shipping	Marking Code
BAT64	SOT-23	3000pcs / Tape & Reel	63
BAT64-04	SOT-23	3000pcs / Tape & Reel	64
BAT64-05	SOT-23	3000pcs / Tape & Reel	65
BAT64-06	SOT-23	3000pcs / Tape & Reel	66

Maximum Ratings (@T_A=25°C 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 _{θJA} *	286	°C/W
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

* Part mounted on FR-4 board with recommended pad layout

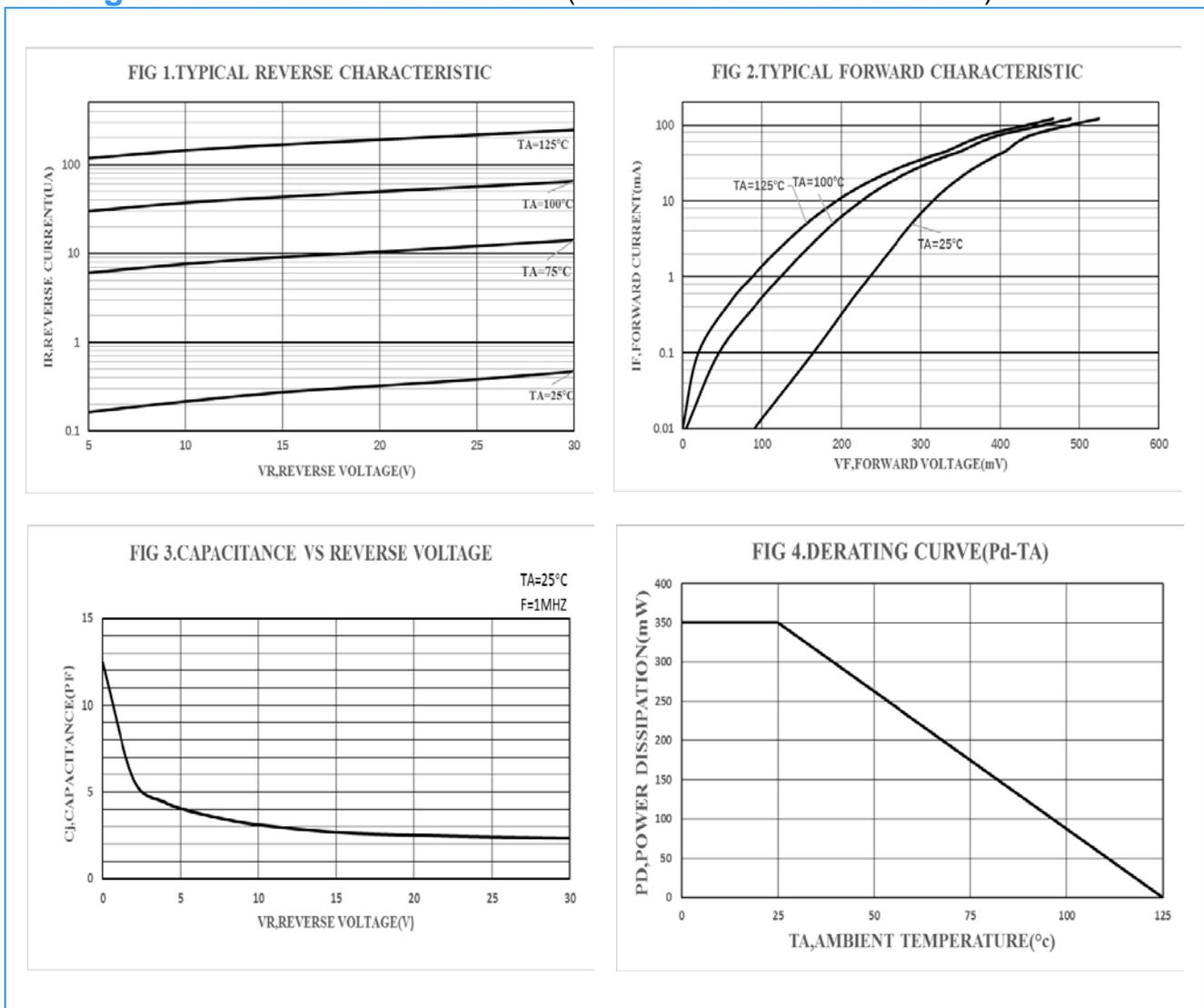
Electrical Characteristics (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=10\text{mA}$	40	-	-	V
Forward Voltage *1	V_F	$I_F=1\text{mA}$	0.27	0.32	0.35	V
		$I_F=10\text{mA}$	0.30	0.385	0.43	
		$I_F=30\text{mA}$	0.37	0.44	0.52	
		$I_F=100\text{mA}$	0.50	0.57	0.75	
Reverse Leakage Current *2	I_R	$V_R=30\text{V}$	-	-	2	μA
Capacitance Between Terminals	C_T	$V_R=1\text{V}, f=1\text{MHz}$	-	-	10	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$ $I_{rr}=1.0\text{mA}, R_L=100\Omega$	-	-	5	ns

*1: pulse test, $t_p \leq 300\mu\text{s}$

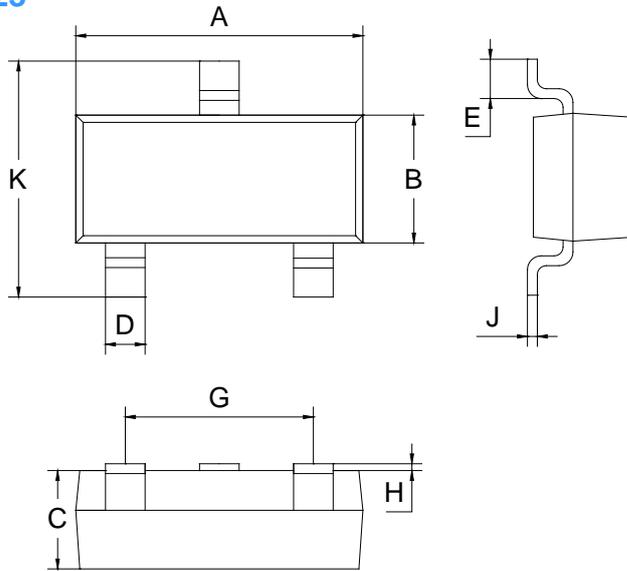
*2: pulse test, $t_p \leq 5\text{ms}$

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)



Package Outline Dimensions (unit: mm)

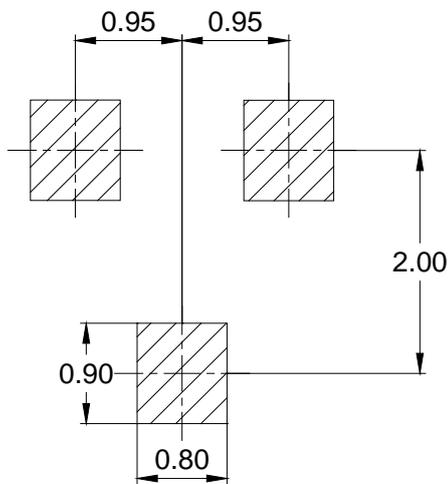
SOT-23



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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