

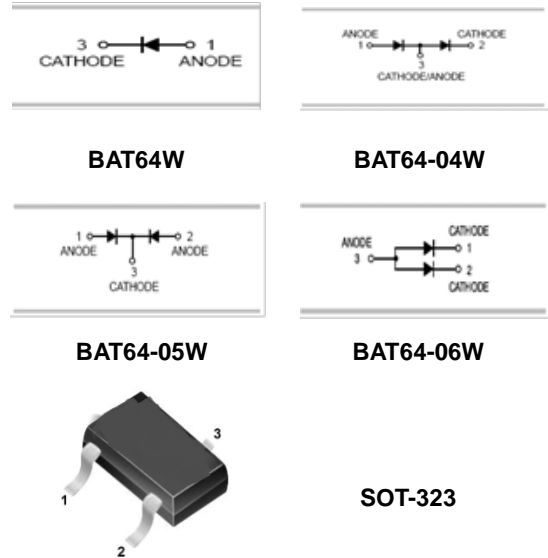


### Features

- For low-loss, fast-recovery, meter protection, bias Isolation. And Clamping Application.
- Low forward voltage.

### Mechanical Data

- Case: SOT-323
- Molding Compound, UL Flammability Classification Rating 94V-0.
- Terminals: Tin Plated Leads, Solderable per MIL-STD-202, Method 208.



### Ordering Information

Part Number	Package	Shipping	Marking Code
BAT64W	SOT-323	3000pcs / Tape & Reel	63
BAT64-04W	SOT-323	3000pcs / Tape & Reel	64
BAT64-05W	SOT-323	3000pcs / Tape & Reel	65
BAT64-06W	SOT-323	3000pcs / Tape & Reel	66

### Maximum Ratings(@ $T_A=25^{\circ}\text{C}$ 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	$P_D$	200	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}^*$	625	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	$T_J$	-55 to +150	$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

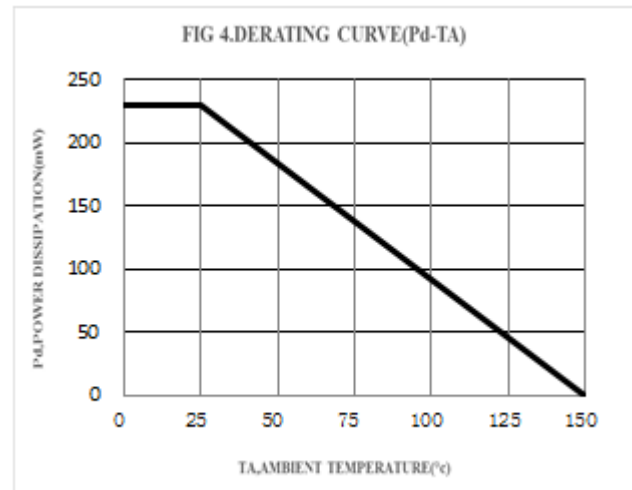
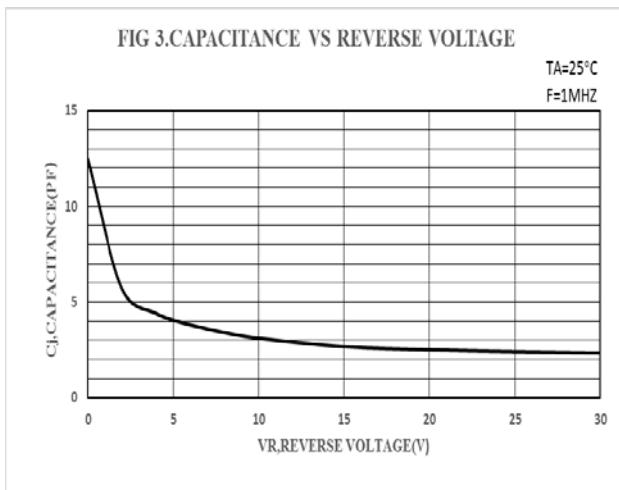
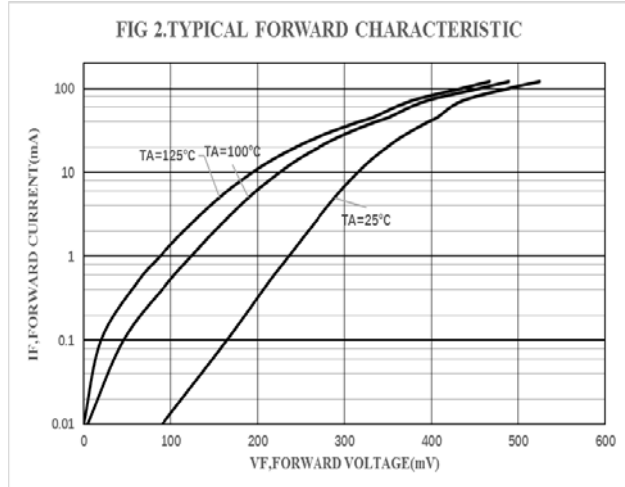
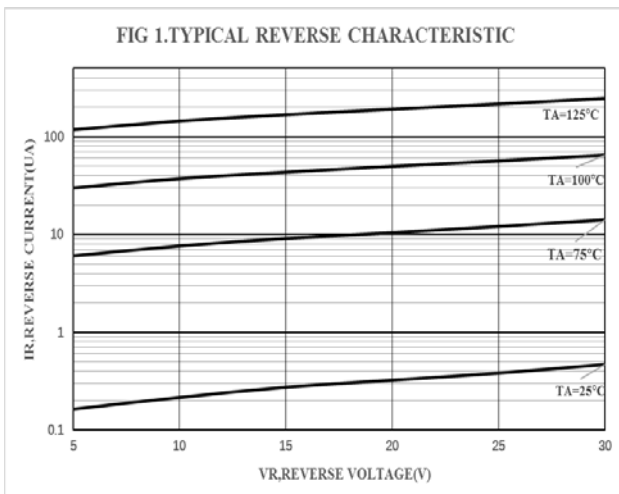
\* Part mounted on FR-4 board with recommended pad layout

### 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	$\mu\text{A}$
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,  $t_p \leq 5\text{ms}$

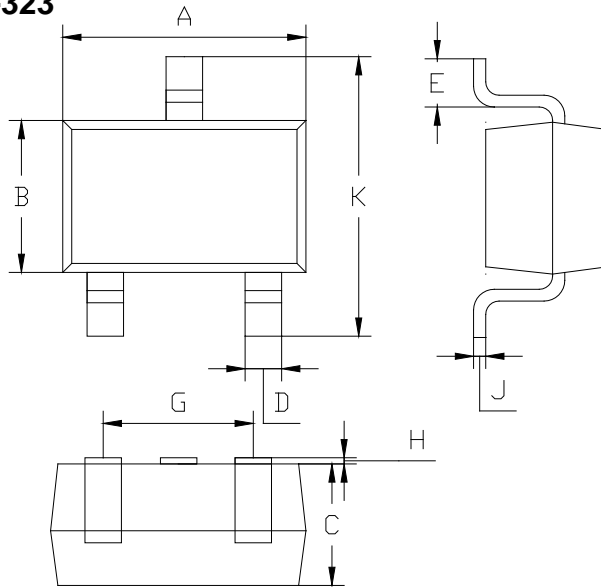
### Ratings and Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)





### Package Outline Dimensions (unit: mm)

#### SOT-323



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 (unit: mm)

#### SOT-323

