

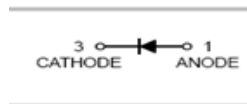
Features

- For low-loss, fast-recovery, meter protection, bias Isolation. And Clamping Application
- Low forward voltage
- RoHS compliant with Halogen-free

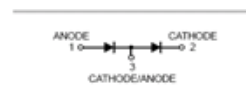
HF

Mechanical Data

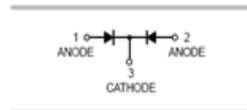
- Case: SOT-323
- Molding Compound, UL Flammability Classification Rating 94V-0
- Terminals: Tin Plated Leads, Solderable per MIL-STD-202, Method 208



BAT64W



BAT64-04W



BAT64-05W



BAT64-06W



SOT-323

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°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 _{θJA} *	625	°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	$I_F=1\text{mA}$	0.23	0.32	0.35	V
		$I_F=10\text{mA}$	0.30	0.385	0.43	
		$I_F=30\text{mA}$	0.36	0.44	0.52	
		$I_F=100\text{mA}$	0.47	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 Characteristics Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

FIG 1.TYPICAL REVERSE CHARACTERISTIC

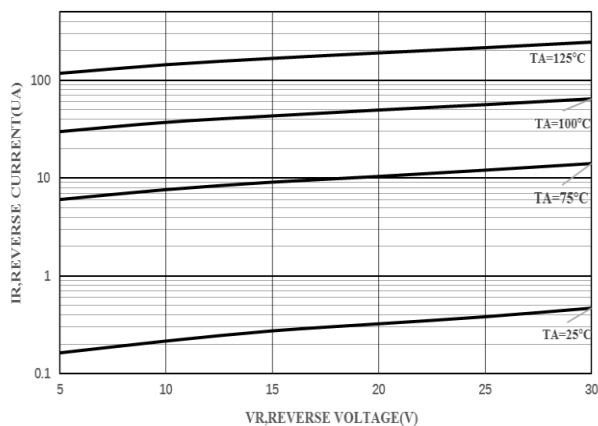


FIG 2.TYPICAL FORWARD CHARACTERISTIC

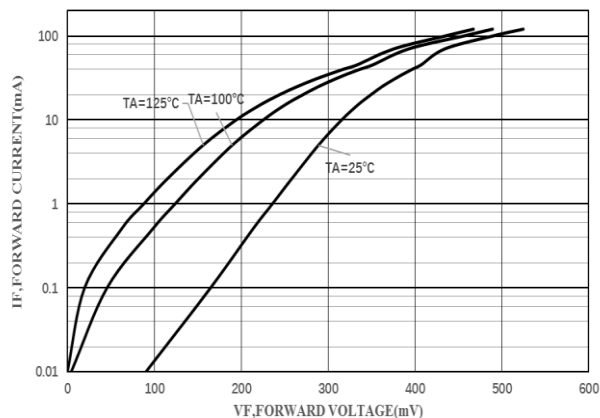


FIG 3.CAPACITANCE VS REVERSE VOLTAGE

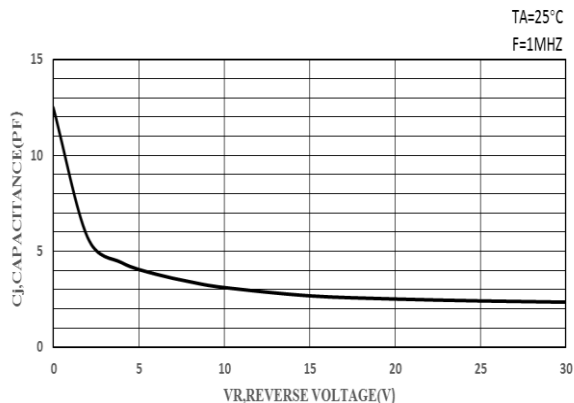
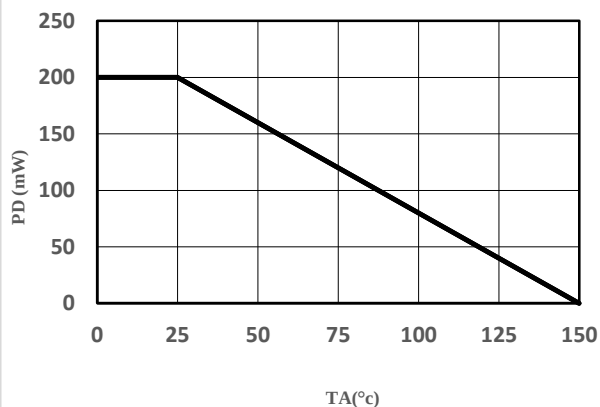
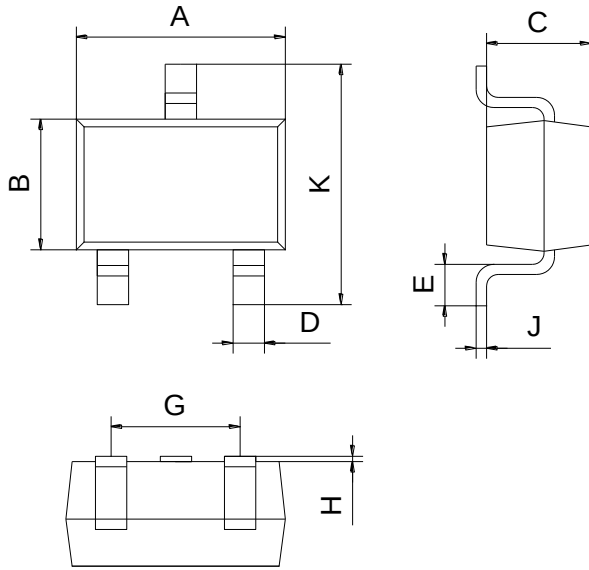


FIG 4. DERATING CURVE(PD-TA)



Package Outline Dimensions (unit: mm)

SOT-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

