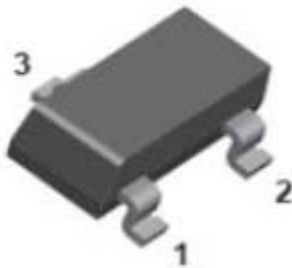
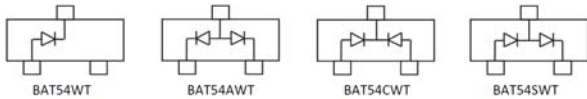


Schottky Barrier Diode



Features

- Moisture sensitivity level 1
- Reverse voltage: 30V
- Average forward current : 200mA

Application

- High frequency and low voltage rectifier

Mechanical data

- **Package:** SOT-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Value	
			BAT54WT	BAT54SWT
Device marking code			KL5	KL8
			KL6	
			KL7	
				KL8
Repetitive peak reverse voltage	V _{RRM}	V	30	
Forward current, per leg	I _F	mA	200	
Non-repetitive surge peak forward current @ t=8.3ms half-sine wave	I _{FSM}	A	0.6	
Non-repetitive surge peak forward current @ t=1ms square wave			0.6	
Power dissipation	P _D	mW	200	



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Parameter	Symbol	Unit	Value
Junction temperature	T_J	°C	-55 to +125
Storage temperature	T_{STG}	°C	-55 to +125

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Parameter	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse voltage	V_R	V	$I_R=0.1\text{mA}$	30		
Forward voltage	V_{F1}	V	$I_F=0.1\text{mA}$			0.24
	V_{F2}	V	$I_F=1\text{mA}$			0.32
	V_{F3}	V	$I_F=10\text{mA}$			0.4
	V_{F4}	V	$I_F=30\text{mA}$			0.5
	V_{F5}	V	$I_F=100\text{mA}$			1
Reverse leakage current	I_R	uA	$V_R=25\text{V}$			2
Junction capacitance	C_j	pF	$V_R=1.0\text{V}, f=1\text{MHz}$		10	
Reverse recovery time	T_{rr}	ns	$I_F=I_R=10\text{mA},$ $I_{rr}=0.1*I_R, R_L=100\Omega$			5

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{\theta J-A}^{(1)}$	°C/W	500
Thermal resistance, junction-to-case	$R_{\theta J-C}^{(1)}$	°C/W	400

Note:

(1) Device mounted on PCB, single-sided copper, with standard footprint



■ Characteristics

Fig 1: P_D-T_a Curve

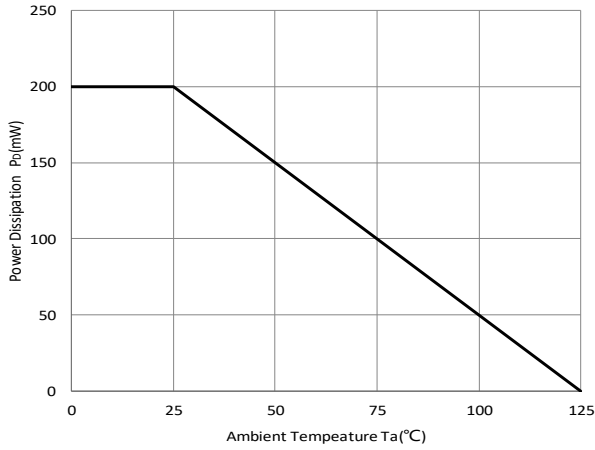


Fig 2: Capacitance Capability

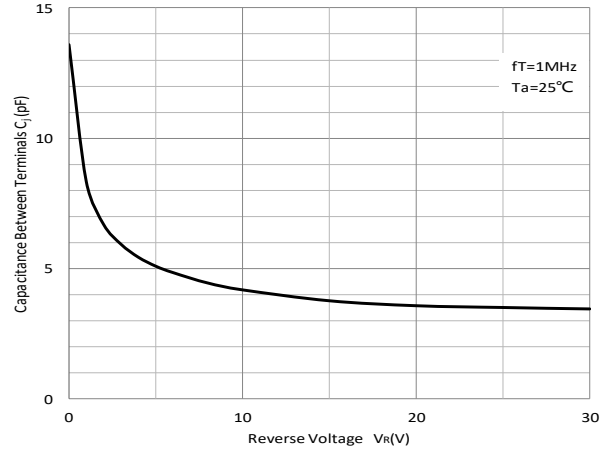


Fig 3: Typical Forward Characteristics

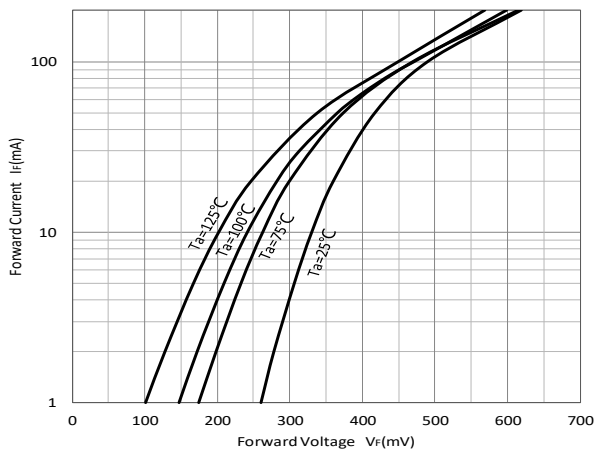
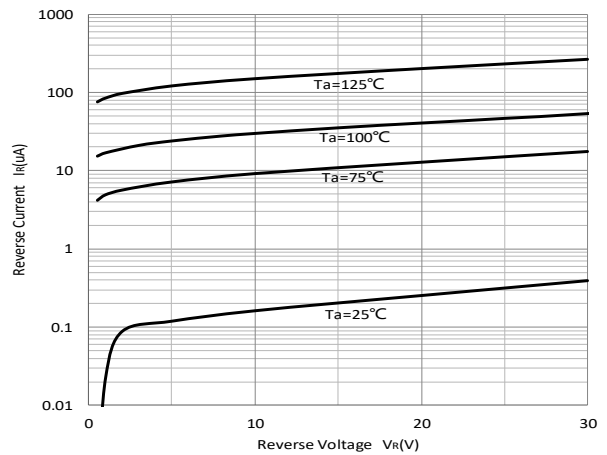


Fig 4: Typical Reverse Characteristics





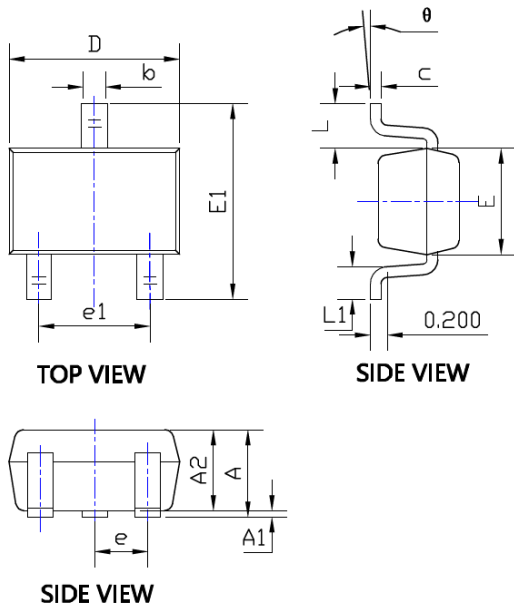
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Ordering Information

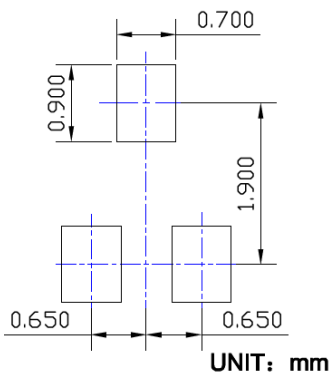
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity (pcs)	Delivery mode
BAT54WT THRU BAT54SWT	F2	Approximate 0.005	3000	30000	120000	7" reel

Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.016	0.150	0.400
c	0.004	0.010	0.100	0.250
D	0.071	0.087	1.800	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.026 TYP		0.650 TYP	
e1	0.047	0.055	1.200	1.400
L	0.021 REF		0.525 REF	
L1	0.010	0.018	0.260	0.460
theta	0°	8°	0°	8°

Suggested Pad Layout





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