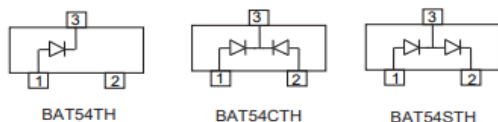
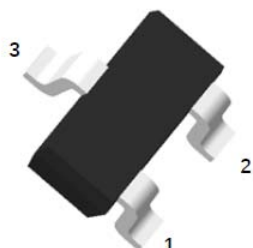




Schottky Barrier Diode



Features

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

Application

- High frequency rectifier
- Signal switching

Mechanical data

- **Package:** SOT-523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

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

Parameter	Symbol	Unit	Conditions	Value
Device marking code			BAT54TH	L1H
			BAT54CTH	L3H
			BAT54STH	L4H
Repetitive peak reverse voltage	V_R	V		30
Forward current, per leg	I_F	mA		200
Non-repetitive surge peak forward current @ $t=8.3\text{ms}$ half-sine wave	I_{FSM}	A		2
Power dissipation	P_D	mW		200
Junction temperature	T_J	$^{\circ}\text{C}$		-55 to +150
Storage temperature	T_{STG}	$^{\circ}\text{C}$		-55 to +150



BAT54TH THRU BAT54STH

RoHS
COMPLIANT

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Reverse voltage	V _R	V	I _R =100uA	30		
Forward voltage	V _F	V	I _F =0.1mA			0.24
			I _F =1mA			0.32
			I _F =10mA			0.4
			I _F =30mA			0.5
			I _F =100mA			1
Reverse leakage current	I _R	uA	V _R =25V			2
Junction capacitance	C _j	pF	f=1.0MHz, V _R =1V			10
Reverse recovery time	T _{rr}	ns	I _F =I _R =10mA I _{rr} =0.1*I _R , R _L =100Ω			10

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	625
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	500

Note:

(1) Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 25.4mm*25.4mm copper pad areas



BAT54TH THRU BAT54STH

RoHS
COMPLIANT

■ Characteristics

Fig 1: P_D -Ta Curve

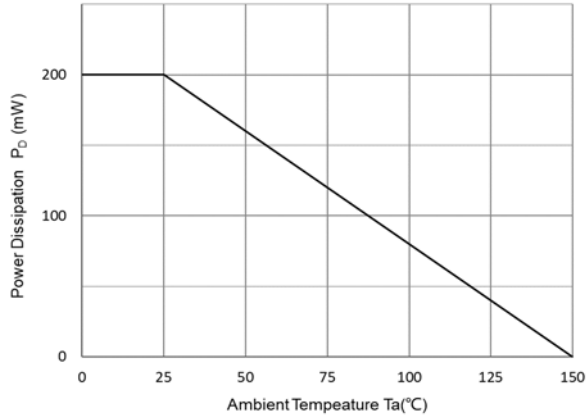


Fig 2: Capacitance Capability

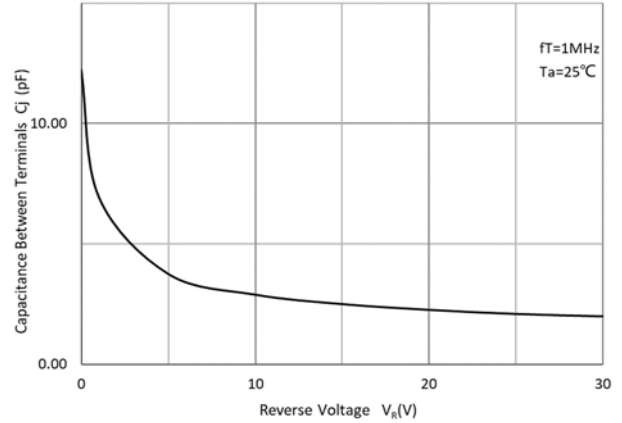


Fig 3: Typical Forward Characteristics

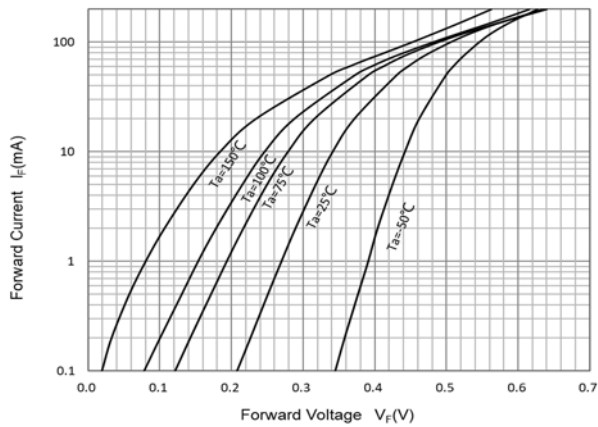
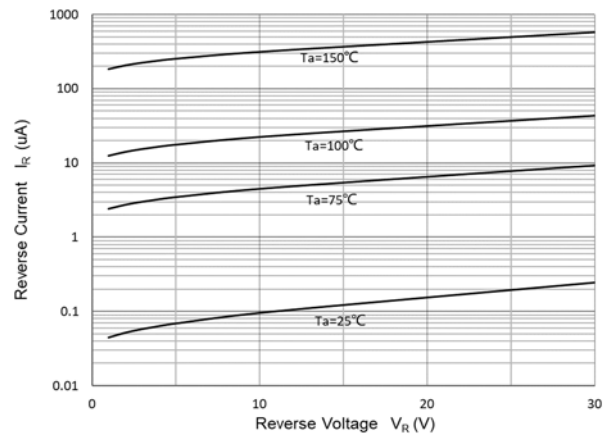


Fig 4: Typical Reverse Characteristics





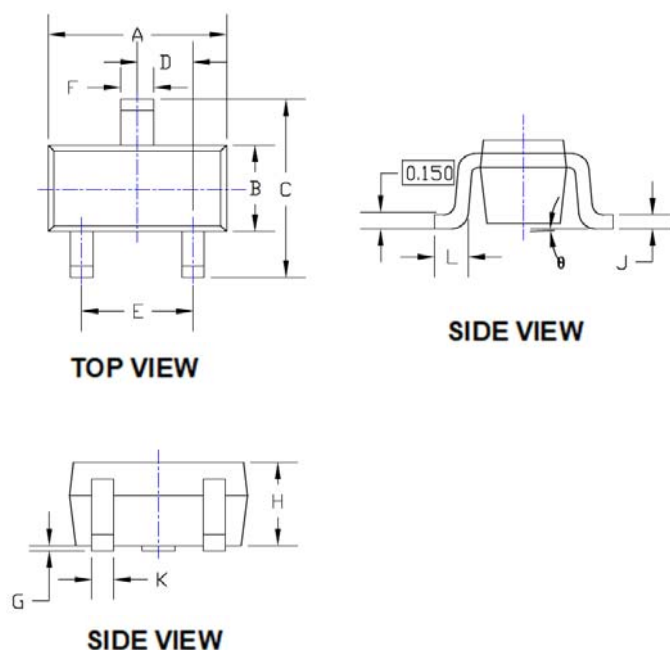
BAT54TH THRU BAT54STH

RoHS
COMPLIANT

■ Ordering Information

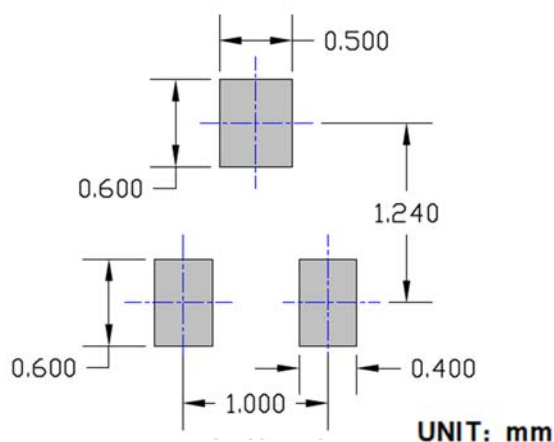
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
BAT54TH THRU BAT54STH	F2	Approximate 0.0027	3000	30000	120000	7" reel

■ Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.059	0.067	1.500	1.700
B	0.030	0.033	0.750	0.850
C	0.057	0.069	1.450	1.750
D	0.020TYP		0.500TYP	
E	0.035	0.043	0.900	1.100
F	0.010	0.018	0.250	0.450
G	0.000	0.004	0.000	0.100
H	0.024	0.031	0.600	0.800
J	0.004	0.008	0.100	0.200
K	0.006	0.014	0.150	0.350
L	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°

■ Suggested Pad Layout





BAT54TH THRU BAT54STH

RoHS
COMPLIANT

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function, or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.