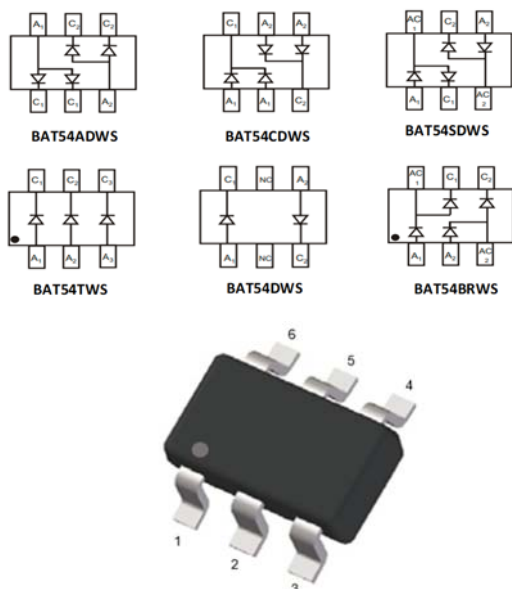




Schottky Barrier Diodes



Features

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

Application

- High frequency and low voltage rectifier

Mechanical data

- **Package:** SOT-363S
- **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	
Device marking code			BAT54ADWS	KL6
			BAT54CDWS	KL7
			BAT54SDWS	KL8
			BAT54TWS	KLA
			BAT54DWS	KLD
			BAT54BRWS	KLB
Repetitive peak reverse voltage	V _{RRM}	V	30	
Forward current	I _F	mA	200	
Non-repetitive Surge peak forward current @ t=8.3ms half-sine wave	I _{FSM}	A	0.6	



BAT54 ADWS/CDWS/SDWS/TWS/DWS/BRWS

Parameter	Symbol	Unit	Value
Non-repetitive Surge peak forward current @ t=1ms square wave			0.6
Power dissipation	P_D	mW	150
Junction temperature	T_J	°C	-55 to +125
Storage temperature	T_{STG}	°C	-55 to +150

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

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Reverse voltage	V_R	V	$I_R=0.1mA$	30		
Forward voltage	V_{F1}	V	$I_{FM}=0.1mA$			0.24
	V_{F2}	V	$I_{FM}=1mA$			0.32
	V_{F3}	V	$I_{FM}=10mA$			0.4
	V_{F4}	V	$I_{FM}=30mA$			0.5
	V_{F5}	V	$I_{FM}=100mA$			1
Reverse leakage current	I_R	uA	$V_R=25V$			2
Junction capacitance	C_j	pF	$V_R=1.0V, f=1MHz$			10

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{\theta J-A}^{(1)}$	°C/W	667
Thermal resistance, junction-to-case	$R_{\theta J-C}^{(1)}$	°C/W	534

Note:

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



BAT54 ADWS/CDWS/SDWS/TWS/DWS/BRWS

■ Characteristics

Fig 1: P_D - T_a Curve

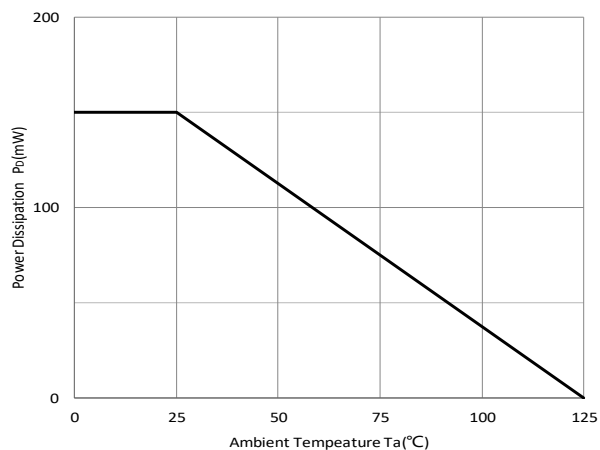


Fig 2: Capacitance Capability

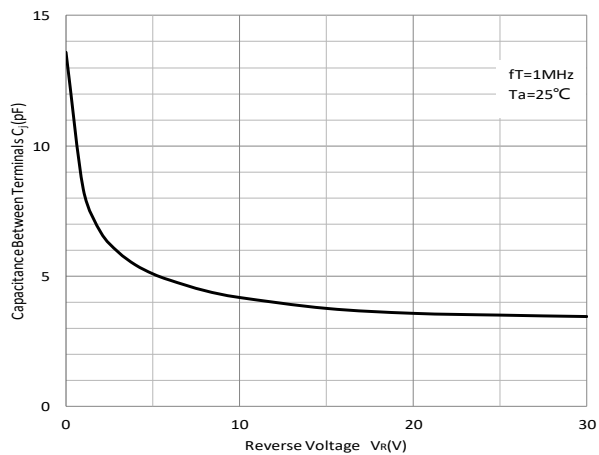


Fig 3: Typical Forward Characteristics

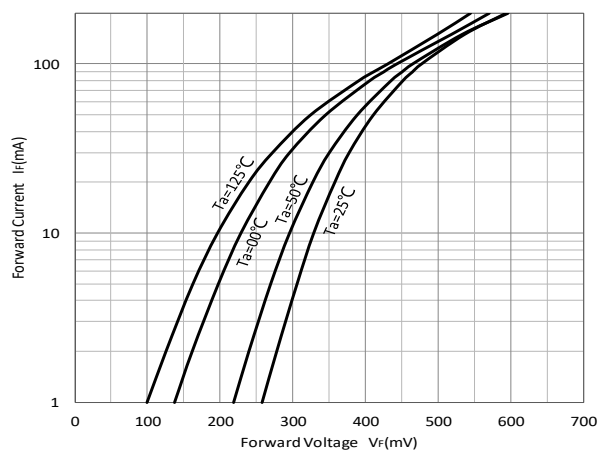
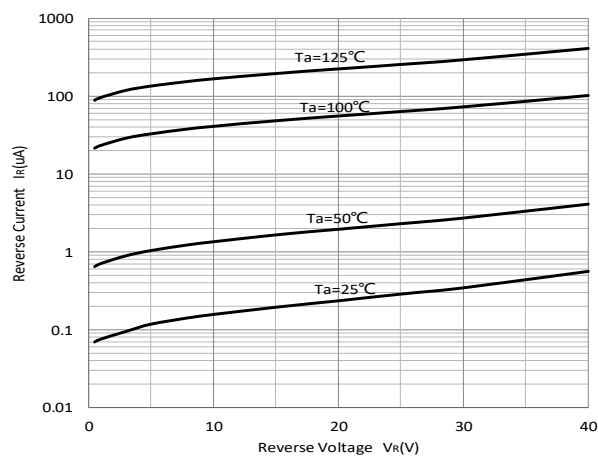


Fig 4: Typical Reverse Characteristics



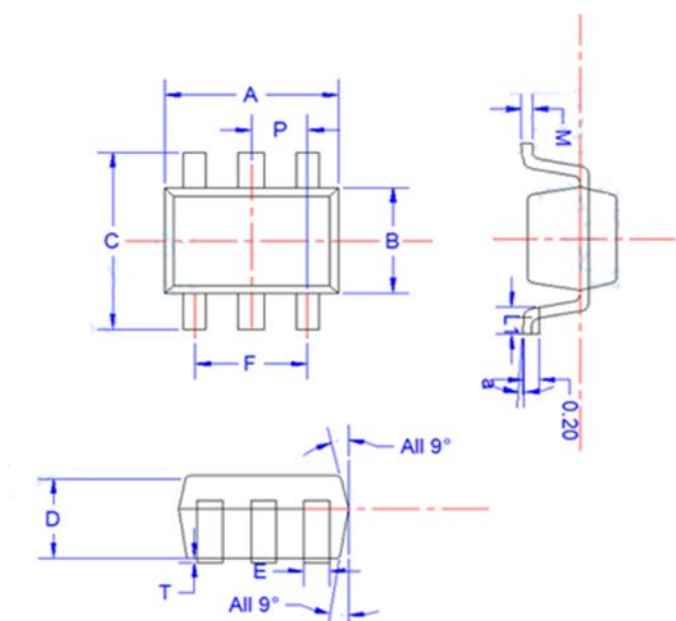


BAT54 ADWS/CDWS/SDWS/TWS/DWS/BRWS

■ Ordering Information

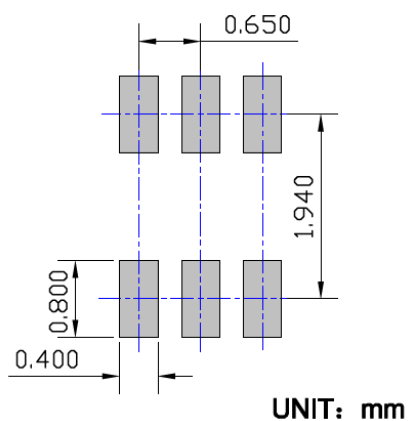
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity (pcs)	Delivery mode
BAT54ADWS THRU BAT54BRWS	F2	Approximate 0.009	3000	30000	120000	7" reel
BAT54ADWS THRU BAT54BRWS	F3	Approximate 0.009	10000	/	210000	7" reel

■ Outline Dimensions



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
E	0.15	0.25	0.35
B	1.15	1.25	1.35
C	2.00	2.10	2.20
P	0.650BSC		
A	1.80	2.00	2.20
T	0.00	0.05	0.100
D	0.90	0.95	1.00
L1	0.20	0.30	0.40
a	4°±4°		
M	0.10	0.15	0.25

■ Suggested Pad Layout





BAT54 ADWS/CDWS/SDWS/TWS/DWS/BRWS

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