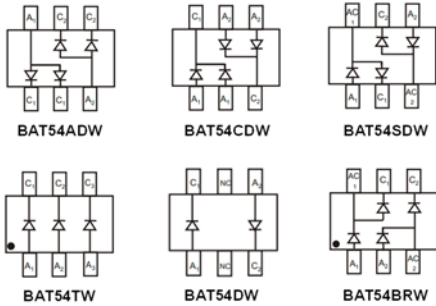


## Schottky Barrier Diodes



**SOT-363**



### Features

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

### Application

- High frequency and low voltage rectifier

### Mechanical data

- **Package:** SOT-363
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

### ■ Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Value	
Device marking code			BAT54ADW	KL6
			BAT54CDW	KL7
			BAT54SDW	KL8
			BAT54TW	KLA
			BAT54DW	KLD
			BAT54BRW	KLB
Repetitive peak reverse voltage	V <sub>RRM</sub>	V	30	
Forward current	I <sub>F</sub>	mA	200	



# BAT54 ADW/CDW/SDW/TW/DW/BRW

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Parameter	Symbol	Unit	Value
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	150
Junction temperature	$T_J$	°C	-55 to +125
Storage temperature	$T_{STG}$	°C	-55 to +150

## ■ Electrical Characteristics (T<sub>a</sub>=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



■ Characteristics

Fig 1:  $P_D$ - $T_a$  Curve

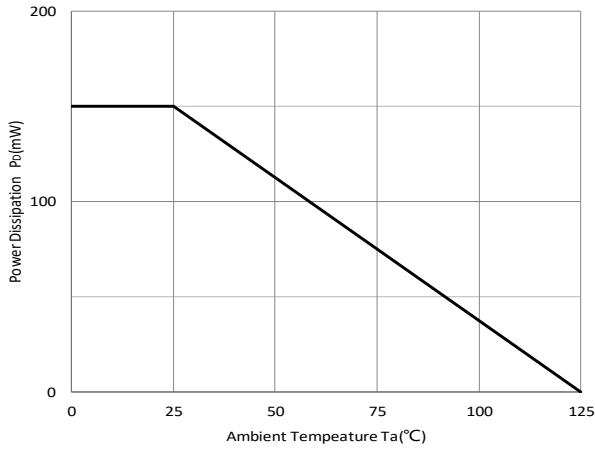


Fig 2: Capacitance Capability

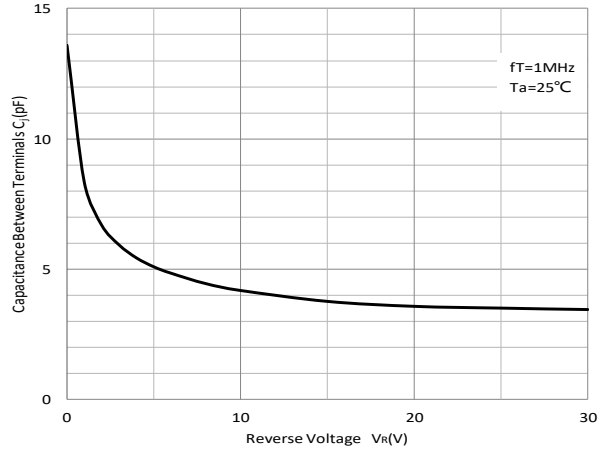


Fig 3: Typical Forward Characteristics

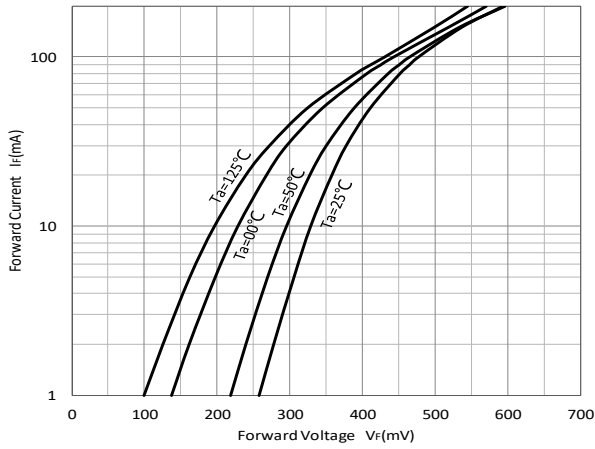
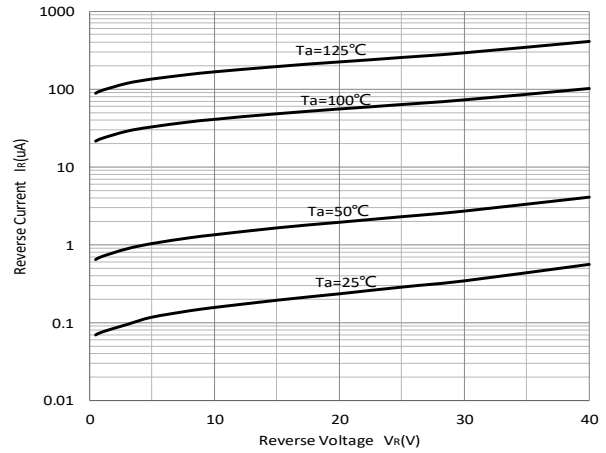


Fig 4: Typical Reverse Characteristics





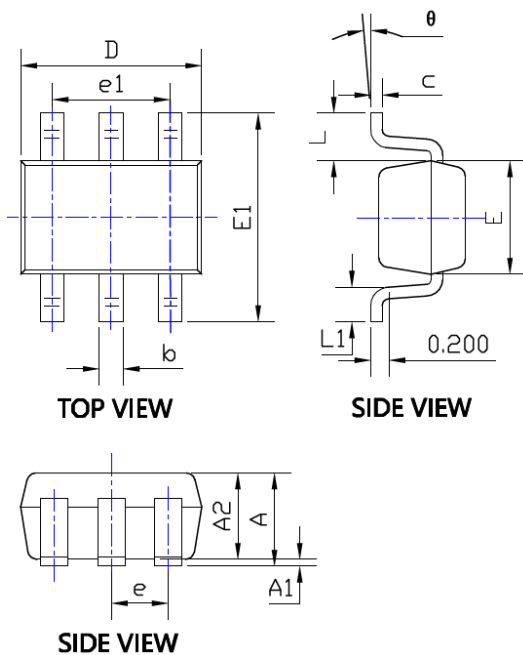
# BAT54 ADW/CDW/SDW/TW/DW/BRW

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COMPLIANT

## Ordering Information

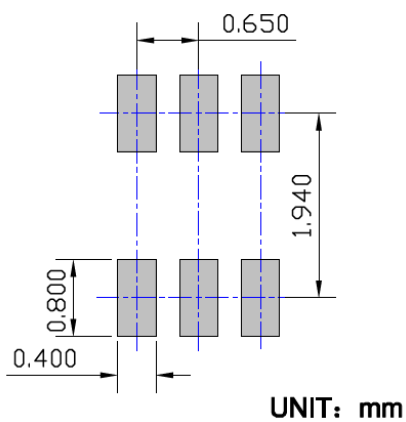
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity (pcs)	Delivery mode
BAT54ADW THRU BAT54BRW	F2	Approximate 0.009	3000	30000	120000	7" reel
BAT54ADW THRU BAT54BRW	F3	Approximate 0.009	10000	/	210000	7" reel

## 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	0.014	0.150	0.350
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	0.026TYP		0.650TYP	
e1	0.047	0.055	1.200	1.400
L	0.021REF		0.525REF	
L1	0.010	0.018	0.260	0.460
theta	0°	8°	0°	8°

## Suggested Pad Layout





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