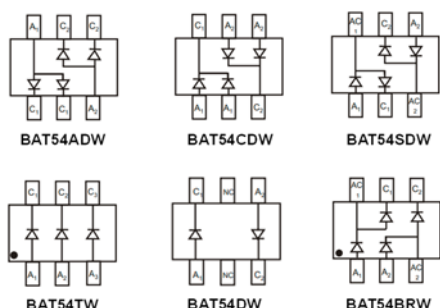


BAT54 ADW/CDW/SDW/TW/DW/BRW

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_a=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 _{RRM}	V	30	
Forward current	I _F	mA	200	

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

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 ($T_a=25^{\circ}\text{C}$ 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	$I_{FM}=0.1\text{mA}$			0.24
	V_{F2}	V	$I_{FM}=1\text{mA}$			0.32
	V_{F3}	V	$I_{FM}=10\text{mA}$			0.4
	V_{F4}	V	$I_{FM}=30\text{mA}$			0.5
	V_{F5}	V	$I_{FM}=100\text{mA}$			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

■ 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 ADW/CDW/SDW/TW/DW/BRW

■ Characteristics

Fig 1: P_D - T_a Curve

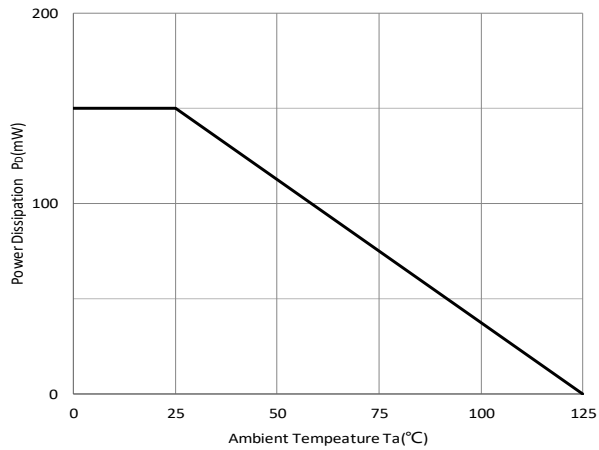


Fig 2: Capacitance Capability

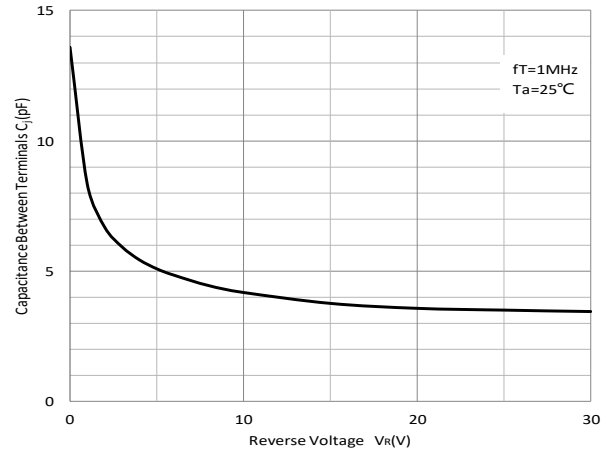


Fig 3: Typical Forward Characteristics

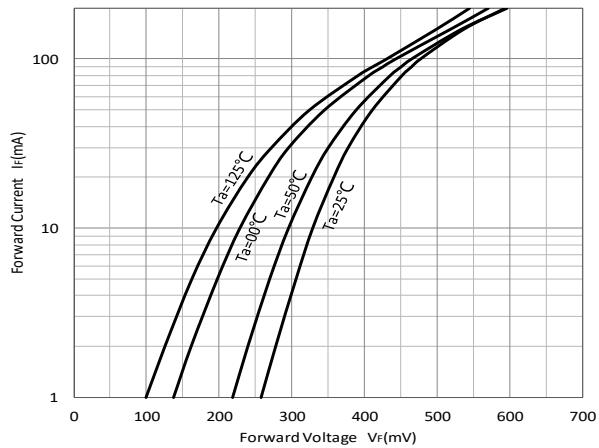
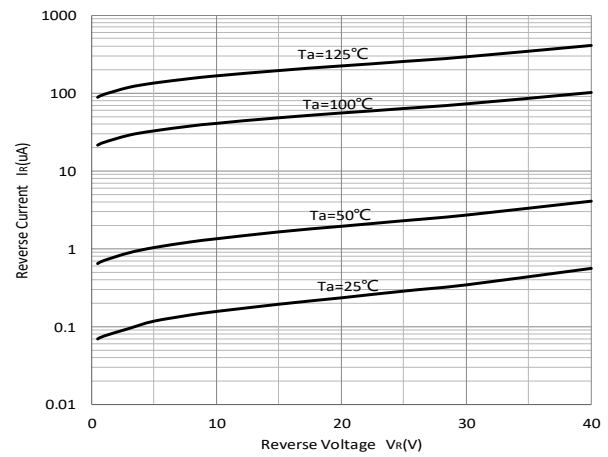


Fig 4: Typical Reverse Characteristics

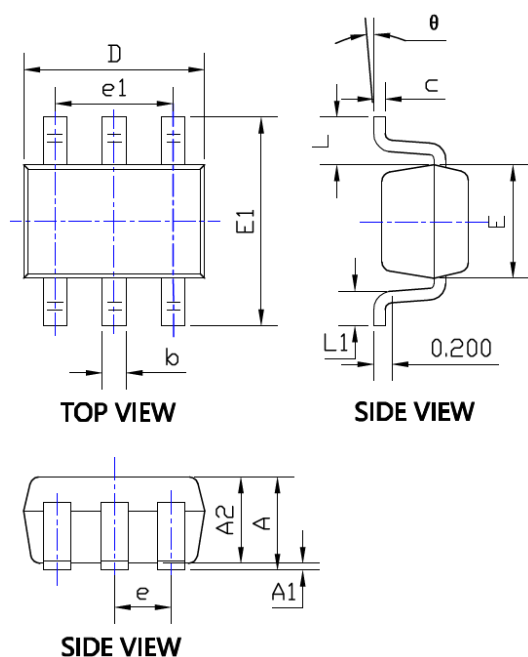


BAT54 ADW/CDW/SDW/TW/DW/BRW

■ Ordering Information

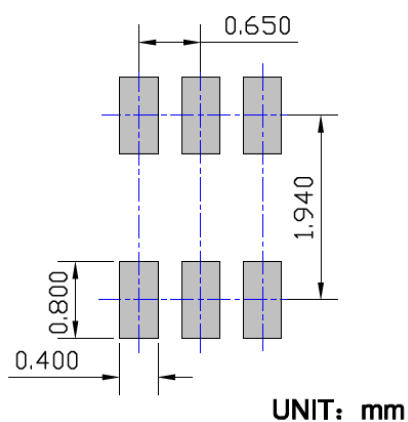
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity (pcs)	Delivery mode
BAT54ADW THRU BAT54BRW	F2	Approximate 0.009	3000	30000	120000	7" reel
BAT54ADW THRU BAT54BRW	F3	Approximate 0.009	10000	/	210000	7" reel

■ 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
θ	0°	8°	0°	8°

■ Suggested Pad Layout



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

Disclaimer

The information presented in this document is for reference only. Shanghai Sunco Electronics 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), Russiansunco 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.russiansunco.com](http://www.russiansunco.com) , or consult your nearest Russiansunco's sales office for further assistance.