

BAT54ADW THRU BAT54JW

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

SOT-363 Surface Mount Schottky Barrier Rectifier

Features

- V_R 30V
- $I_{F(AV)}$ 0.2A
- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications

Applications

For use in low voltage high frequency circuit signals.

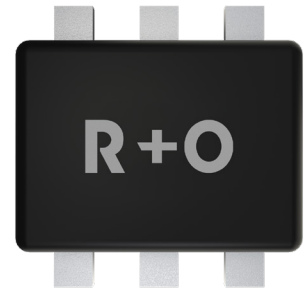
Mechanical Data

- Case: SOT-363
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

Function Diagram

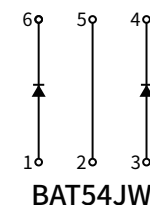
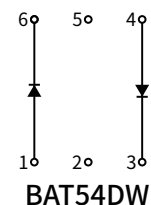
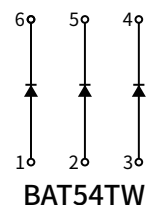
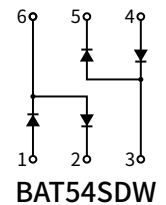
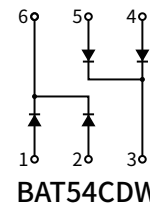
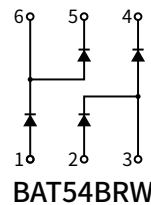
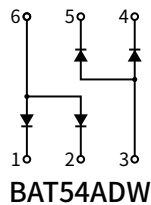
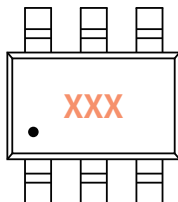
Reverse Voltage
30V
Forward Current
0.2 Ampere

SOT-363



Marking:

BAT54ADW:KL6 BAT54TW:KLA
BAT54BRW:KLB BAT54DW:KLD
BAT54CDW:KL7 BAT54JW:KLC
BAT54SDW:KL8



Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Maximum repetitive peak reverse voltage	V_{RRM}	V	30
Maximum RMS Voltage	V_{RMS}	V	21
Maximum DC blocking voltage	V_{DC}	V	30
Maximum Average Forward Rectified Current	$I_{F(AV)}$	A	0.2
Non-repetitive Peak Forward Surge Current @t=8.3ms Half-sine wave	I_{FSM}	A	0.6
Power Dissipation	P_d	mW	200
Storage temperature	T_{stg}	°C	-55~+125
Junction temperature	T_j	°C	-55 ~+150
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	500

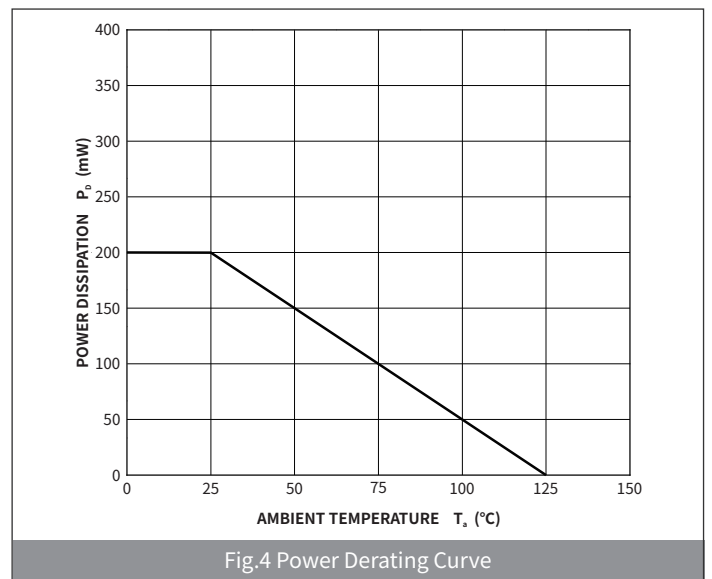
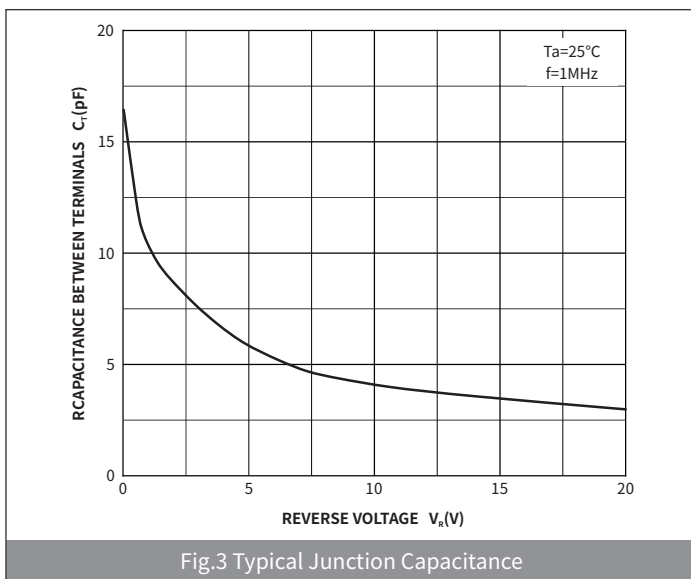
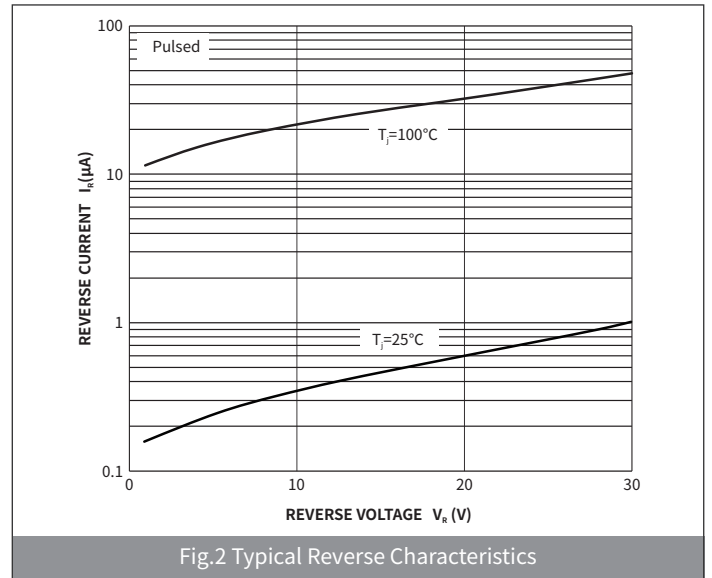
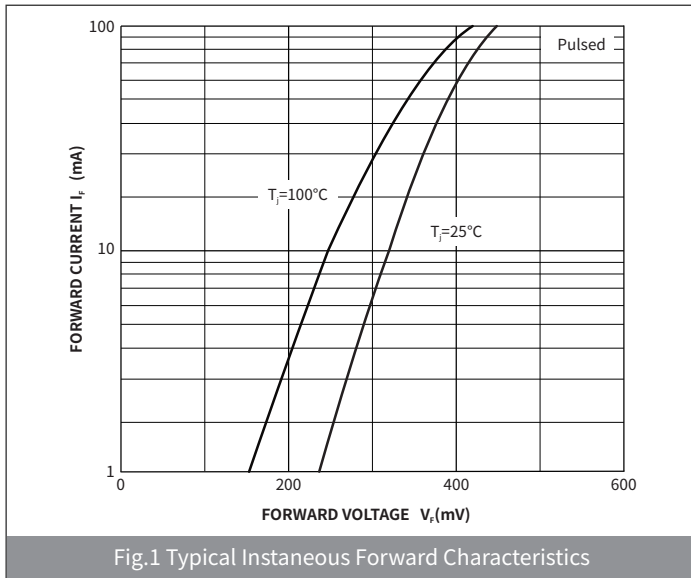
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● Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Type	Max
Maximum forward voltage	$I_F=1\text{mA}$	V_F	V	—	—	0.32
	$I_F=10\text{mA}$			—	—	0.4
	$I_F=30\text{mA}$			—	—	0.5
	$I_F=100\text{mA}$			—	—	1.0
Maximum reverse current	$V_R=25\text{V}$	I_R	μA	—	—	2.0
Capacitance between terminals	$V_R=1.0\text{V}, f=1.0\text{MHz}$	C_T	pF	—	—	10
Reverse recovery time	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R$ $R_L=100\Omega$	t_{rr}	nS	—	—	5
Reverse breakdown voltage	$I_R=100\mu\text{A}$	V_R	V	30	—	—

● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



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● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOT-363	R1	0.0068	3000	45000	180000	7"

● Package Outline Dimensions (SOT-363)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.09	1.10	0.035	0.043
A1	-	0.10	-	0.004
A2	0.90	1.00	0.035	0.039
b	0.15	0.35	0.006	0.014
c	0.10	0.15	0.004	0.006
D	2.00	2.20	0.079	0.087
E	1.15	1.35	0.045	0.053
E1	2.15	2.40	0.085	0.094
e	0.650TYP		0.026TYP	
e1	1.20	1.40	0.047	0.055
L	0.525REF		0.021REF	
L1	0.26	0.46	0.010	0.018
θ	-	8°	-	8°

● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
G	-	0.65	-	0.025
H	-	1.94	-	0.076
X	0.40	-	0.016	-
Y	0.80	-	0.031	-