

BAT54TW / ADW / CDW / SDW / DW / BRW

SURFACE MOUNT SCHOTTKY DIODE ARRAYS

VOLTAGE 30 Volt **POWER** 225mWatt

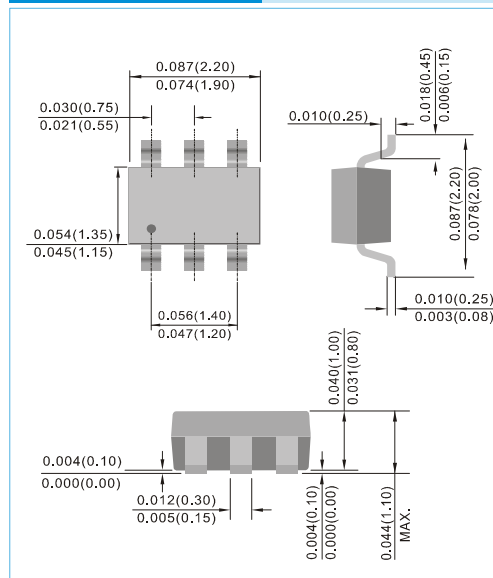
SOT-363 Unit : inch(mm)

FEATURES

- Isolated diode arrays for significant board space savings
- Surface mount package ideally suited for automatic insertion
- Extremely Fast Switching Speed
- Very Low V_F : 0.347V (Typ) at $I_F = 10\text{mA}$
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOT-363 plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0002 ounces, 0.006 grams



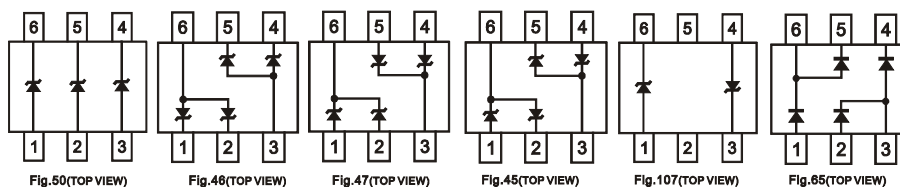
ABSOLUTE RATINGS (each diode)

Parameter	Symbol	BAT54TW	BAT54ADW	BAT54CDW	BAT54SDW	BAT54DW	BAT54BRW	Units
Maximum Reverse Voltage	V_R	30						V
Peak Reverse Voltage	V_{RRM}	30						V
Continuous Forward Current	I_F	0.2						A
Circuit Figure	-	Fig 50	Fig 46	Fig 47	Fig 45	Fig 107	Fig 65	-

THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation (Note 1)	P_{TOT}	225	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	550	$^{\circ}\text{C/W}$
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	220	$^{\circ}\text{C/W}$
Junction Temperature	T_J	-55 to 125	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}\text{C}$

NOTE : 1. FR-4 Board Minimum pad.



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ELECTRICAL CHARACTERISTICS (each diode) (TA=25°C, unless otherwise noted)

Parameter	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\mu A$	30	-	-	V
Reverse Current	I_R	$V_R=25 V$	-	-	2	μA
Forward Voltage	V_F	$I_F=0.1mA$	-	-	0.24	V
		$I_F=1mA$	-	-	0.32	
		$I_F=10mA$	-	-	0.4	
		$I_F=30mA$	-	-	0.5	
		$I_F=100mA$	-	-	0.6	
Total Capacitance	C_T	$V_R=1V, f=1MHz$	-	-	10	pF

ELECTRICAL CHARACTERISTICS CURVES

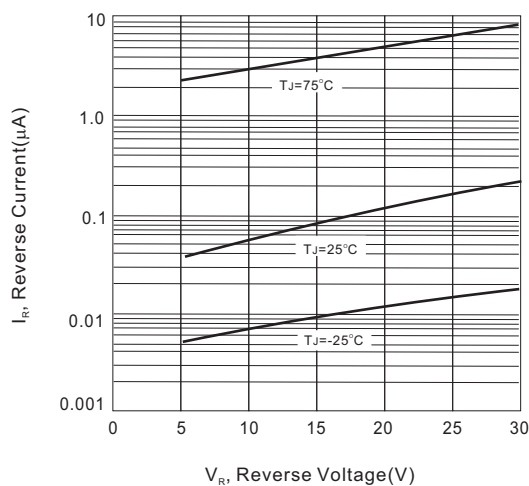


Fig. 1- Typical Reverse Leakage

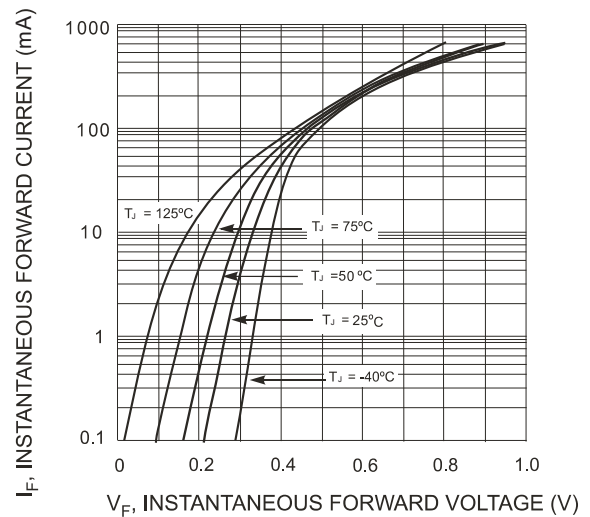


Fig. 2- Forward Characteristics

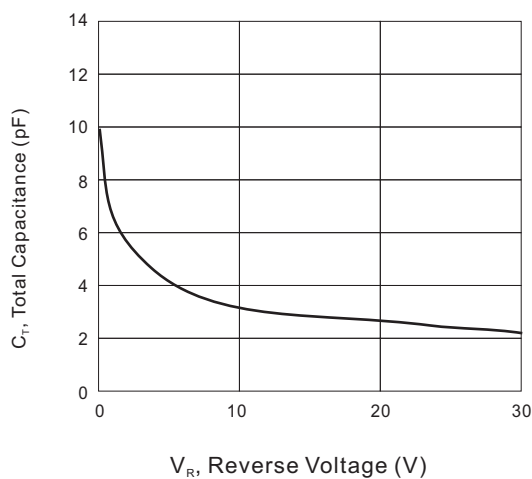


Fig. 3- Typical Total capacitance

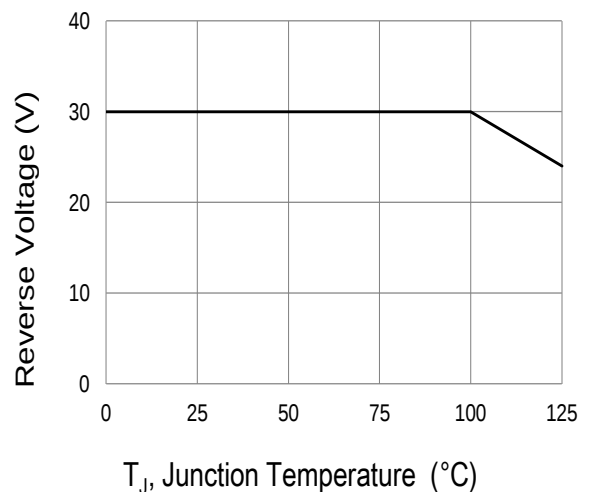


Fig.4 Operating Temperature Derating Curve

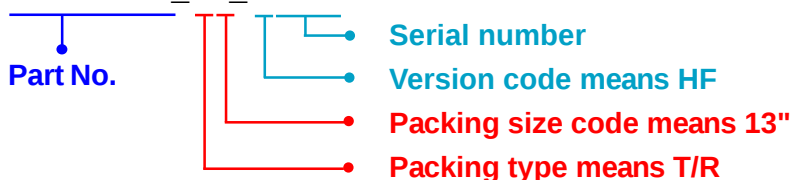
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PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
BAT54TW_R1_00001	SOT-363	3K pcs / 7" reel	L4	Halogen free
BAT54TW_R2_00001	SOT-363	10K pcs / 13" reel	L4	Halogen free
BAT54ADW_R1_00001	SOT-363	3K pcs / 7" reel	L42	Halogen free
BAT54ADW_R2_00001	SOT-363	10K pcs / 13" reel	L42	Halogen free
BAT54CDW_R1_00001	SOT-363	3K pcs / 7" reel	L43	Halogen free
BAT54CDW_R2_00001	SOT-363	10K pcs / 13" reel	L43	Halogen free
BAT54SDW_R1_00001	SOT-363	3K pcs / 7" reel	L44	Halogen free
BAT54SDW_R2_00001	SOT-363	10K pcs / 13" reel	L44	Halogen free
BAT54DW_R1_00001	SOT-363	3K pcs / 7" reel	L41	Halogen free
BAT54DW_R2_00001	SOT-363	10K pcs / 13" reel	L41	Halogen free
BAT54BRW_R1_00001	SOT-363	3K pcs / 7" reel	PN	Halogen free
BAT54BRW_R2_00001	SOT-363	10K pcs / 13" reel	PN	Halogen free

For example :

RB500V-40_R2_00001



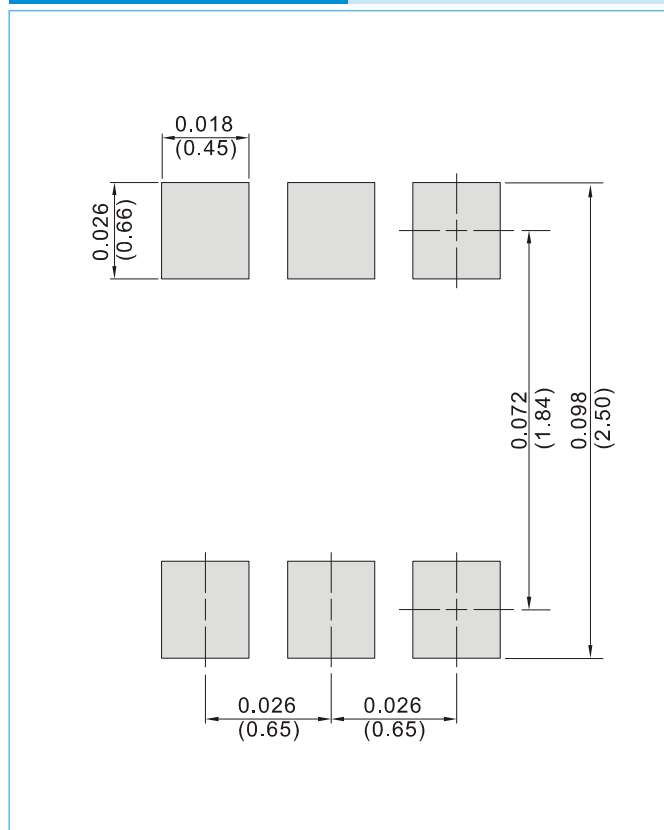
Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

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MOUNTING PAD LAYOUT

SOT-363

Unit : inch(mm)





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