BAT54TW-AU / ADW-AU / CDW-AU / SDW-AU / DW-AU / BRW-AU / TWP-AU

Surface Mount Schottky Diode Arrays

VOLTAGE 30 Volt **POWER** 225mWatt

SOT-363

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 = 10mA
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

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

ABSOLUTE RATINGS (each diode)

Parameter	Symbol	BAT54TW-AU	BAT54ADW-AU	BAT54CDW-AU	BAT54SDW-AU	BAT54DW-AU	BAT54BRW-AU	BAT54TWP-AU	Units
Maximum Reverse Voltage	V_R	30							V
Peak Reverse Voltage	V_{RRM}	30							V
Continuous Forward Current	I_F	0.2							A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load per diode	I_{FSM}	1							A
Circuit Figure	-	Fig 50	Fig 46	Fig 47	Fig 45	Fig 107	Fig 65	Fig 49	-

THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation (Note 1)	P_{TOT}	225	mW
Typical Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	550	°C/W
Typical Thermal Resistance, Junction to Lead (Note 2)	$R_{\theta JL}$	220	°C/W
Junction Temperature Range	T_J	-55 to 125	°C
Storage Temperature Range	T_{STG}	-55 to 150	°C

NOTE:1.FR-4 Board Minimum pad.

2.Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area

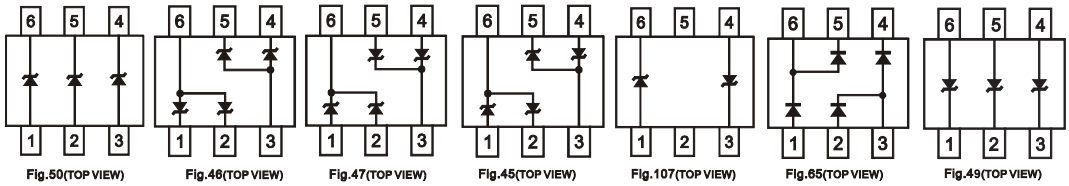

Fig.50(TOP VIEW) Fig.46(TOP VIEW) Fig.47(TOP VIEW) Fig.45(TOP VIEW) Fig.107(TOP VIEW) Fig.65(TOP VIEW) Fig.49(TOP VIEW)

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

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

TYPICAL CHARACTERISTIC CURVES

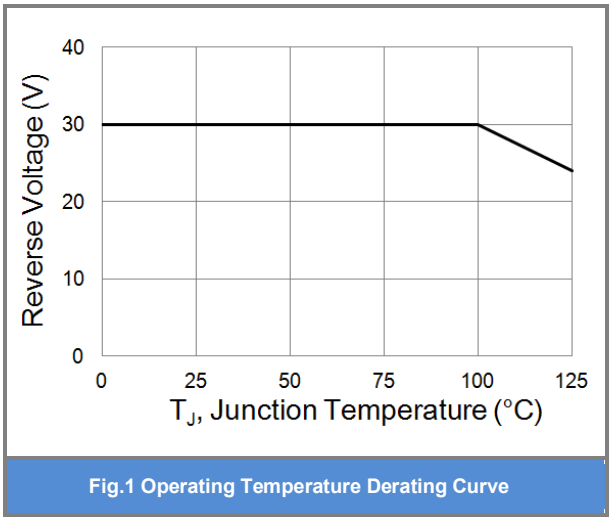

Fig.1 Operating Temperature Derating Curve

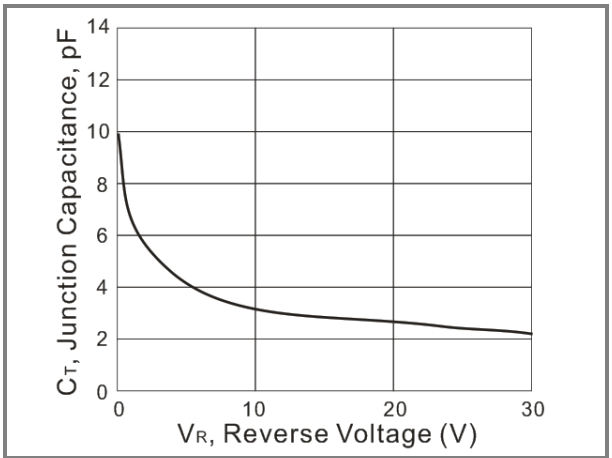

Fig.2 Typical Junction Capacitance

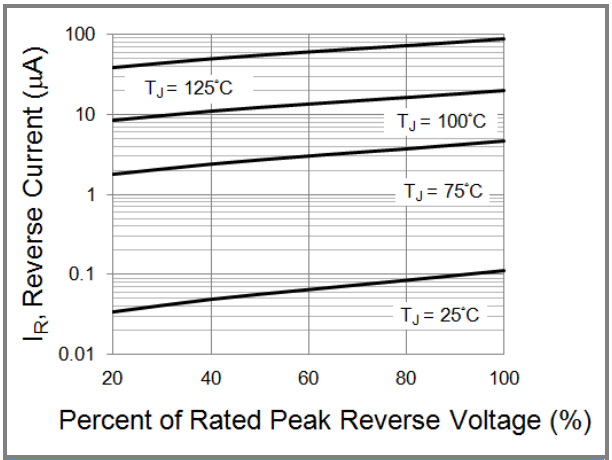

Fig.3 Typical Reverse Characteristics

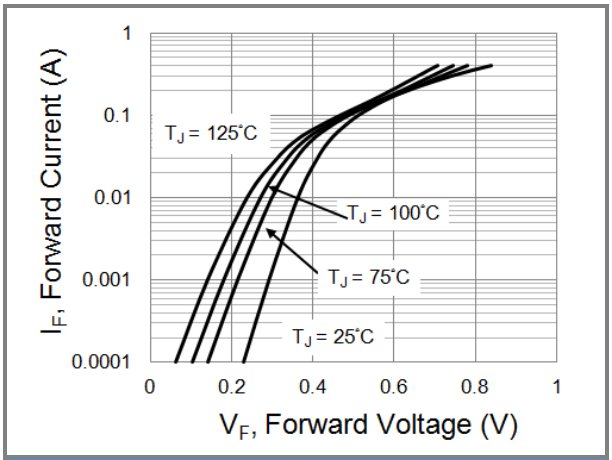

Fig.4 Typical Forward Characteristics

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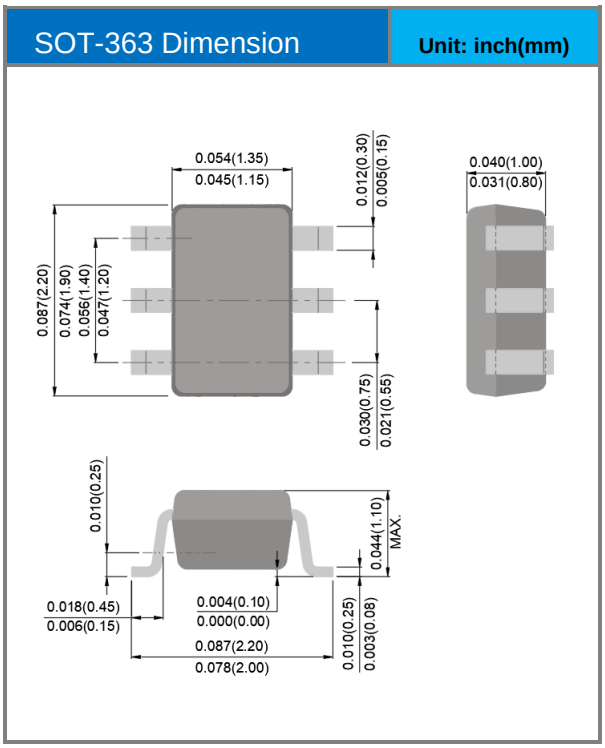
Product and Packing Information

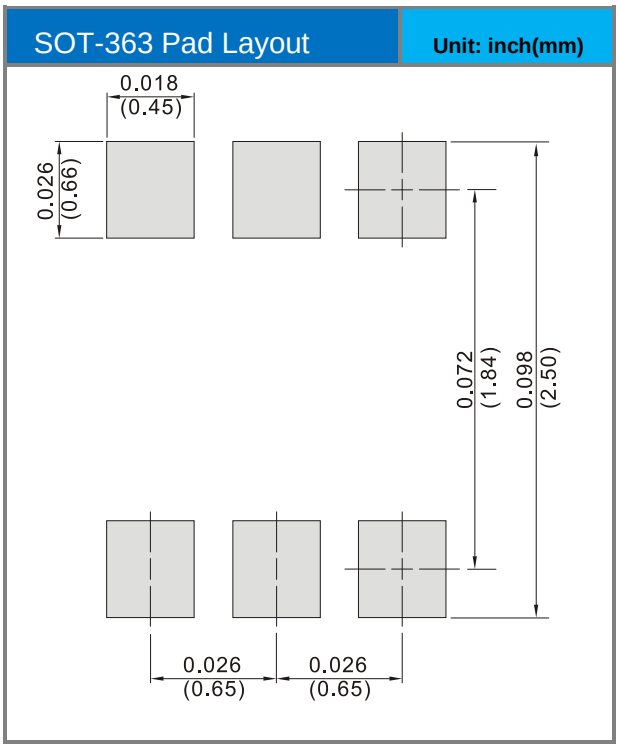
Part No.	Package Type	Packing Type	Marking
BAT54TW-AU	SOT-363	3K / 7" Reel	L4
BAT54ADW-AU	SOT-363	3K / 7" Reel	L42
BAT54CDW-AU	SOT-363	3K / 7" Reel	L43
BAT54SDW-AU	SOT-363	3K / 7" Reel	L44
BAT54DW-AU	SOT-363	3K / 7" Reel	L41
BAT54BRW-AU	SOT-363	3K / 7" Reel	PN
BAT54TWP-AU	SOT-363	3K / 7" Reel	L4P

Packaging Information & Mounting Pad Layout

SOT-363 Dimension — Unit: inch(mm)



SOT-363 Pad Layout — Unit: inch(mm)



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