



### SURFACE MOUNT SCHOTTKY DIODES

Voltage 30 V Current 0.2 A

#### **Features**

- Low forward voltage drop
- Deal for automated placement
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

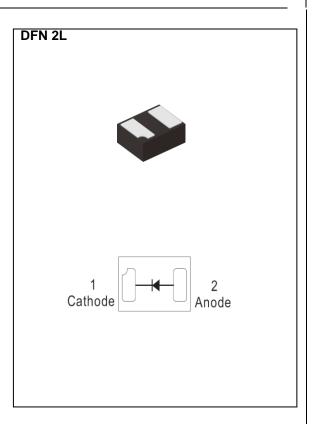
#### **Mechanical Data**

• Case: DFN 2L Package

• Terminals: Solderable per MIL-STD-750, Method 2026

• Polarity: Color band denotes cathode end

• Approx. Weight: 0.00004 ounces, 0.0011 grams



### **Maximum Ratings and Thermal Characteristics** (T<sub>A</sub> = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	30	V
Maximum Rms Voltage	V <sub>RMS</sub>	21	V
Maximum Dc Blocking Voltage	$V_{DC}$	30	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	0.2	Α
Peak Forward Surge Current : 1 s Single Half Sine- Wave Superimposed On Rated Load	I <sub>FSM</sub>	0.6	А
Typical Junction Capacitance  Measured at 1 MHZ And Applied $V_R = 4 \text{ V}$	CJ	4	pF
Typical Thermal Resistance	R <sub>θJA</sub> <sup>(1)</sup>	430	°C/W
Operating Junction Temperature Range	TJ	-55~125	°C
Storage Temperature Range	T <sub>STG</sub>	-55~125	°C

December 20,2017-REV.08





# **Electrical Characteristics** (T<sub>A</sub> = 25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V <sub>F</sub>	$I_F = 1 \text{ mA}, T_J = 25 ^{\circ}\text{C}$	-	-	0.32	V
		$I_F = 100 \text{ mA}, T_J = 25 ^{\circ}\text{C}$	-	-	0.6	
		I <sub>F</sub> = 1 mA, T <sub>J</sub> = 100 °C	-	0.17	-	
		I <sub>F</sub> = 100 mA,T <sub>J</sub> = 100 °C	-	0.48	ı	
Reverse Current	I <sub>R</sub> <sup>(2)</sup>	$V_R = 24 \text{ V}, T_J = 25 ^{\circ}\text{C}$	-	0.2	ı	uA
		$V_R = 30 \text{ V}, T_J = 25 ^{\circ}\text{C}$	-	-	2	
		$V_R = 30 \text{ V}, T_J = 100 ^{\circ}\text{C}$	-	38	-	

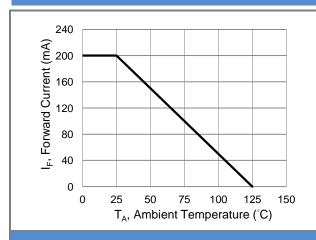
#### NOTES:

- 1. Mounted on a FR4 PCB, single-sided copper, mini pad.
- 2. Short duration pulse test used to minimize self-heating effect

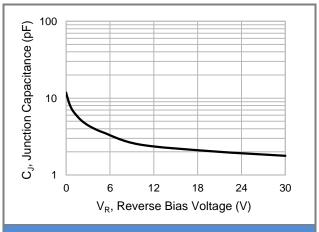




#### **TYPICAL CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 

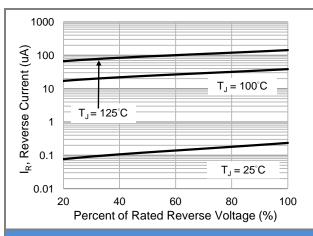


Fig.3 Typical Reverse Characteristics

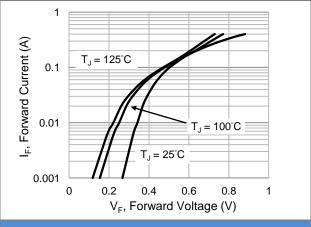


Fig.4 Typical Forward Characteristics

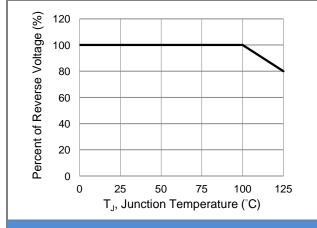


Fig.5 Operating Temperature Derating Curve

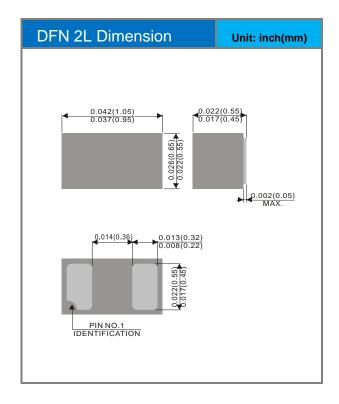


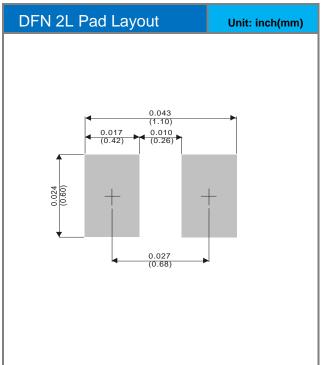


### **Part No Packing Code Version**

Part No Packing Code	Package Type	Packing Type	Marking	Version
BAT54FN2-AU_R1_000A1	DFN 2L	8K / 7" Reel	BN	Halogen free

## **Packaging Information & Mounting Pad Layout**









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