



#### **SURFACE MOUNT SILICON ZENER DIODES**

POWER 250 mWatts VOLTAGE 5.1~5.6 Volts

#### **FEATURES**

- · Planar Die construction
- · 250mW Power Dissipation
- · Zener Voltages from 5.1-5.6V
- · Ideally Suited for Automated Assembly Processes
- · Acqire quality system certificate: TS16949
- · AEC-Q101 qualified
- · Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### **MECHANICAL DATA**

- · Case: DFN-2L, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- · Approx. Weight: 0.0011 grams, 0.00004 ounces

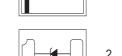
· Mounting Position: Any

· Polarity:Color band denotes cathode end

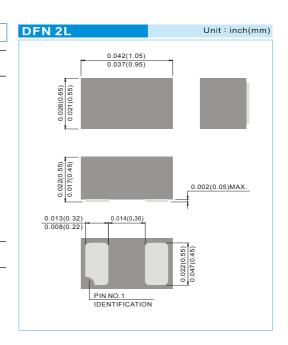




Cathode



Anode



### MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Power Dissipation	Po	250	mW
Thermal resistance Junction to Ambient ( Note 1)	Rөja	500	°C/W
Operating Junction Temperature and StorageTemperature Range	Tu	-55 to +150	°C

### ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking
	Vz @ Izт		Zzt @ Izt		Zzk @ Izk		Ir @ Vr		Code	
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μΑ	V	
250 mWatts Zener Diodes										
BZT52-B5V1FN2-AU	5.1	5.00	5.20	60	5.0	480	1.00	2	2	W9
BZT52-B5V6FN2-AU	5.6	5.49	5.71	40	5.0	400	1.00	1	2	WA

#### NOTES:

1. Mounted on mimimum pad layout .





#### **RATING AND CHARACTERISTIC CURVES**

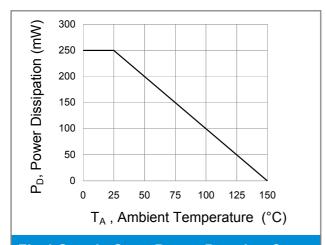


Fig.1 Steady-State Power Derating Curve

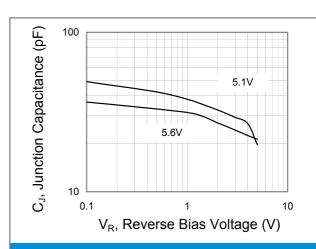


Fig.2 Typical Junction Capacitance

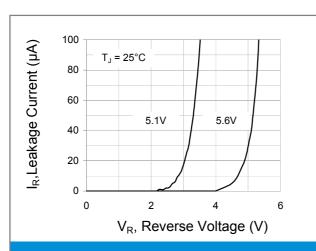


Fig.3 Typical Leakage Characteristics

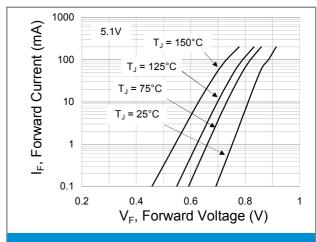
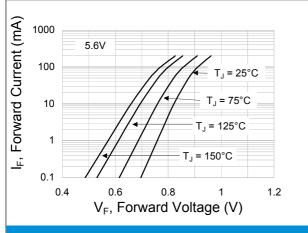
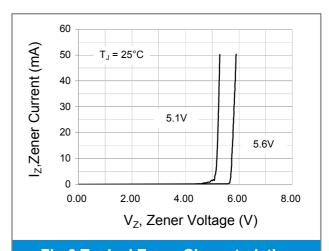


Fig.4 Typical Forward Characteristics



**Fig.5 Typical Forward Characteristics** 



**Fig.6 Typical Zener Characteristics** 





### **RATING AND CHARACTERISTIC CURVES**

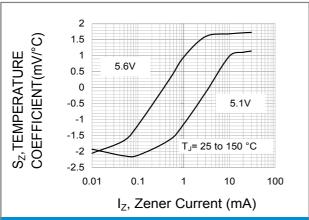
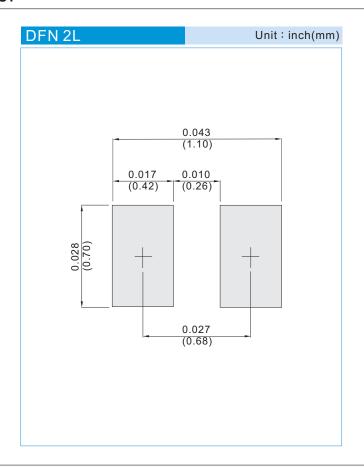


Fig.7 Temperature coefficient as a function of working current; typical values.





#### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

· Packing information

T/R - 8K per 7" plastic Reel





## Part No\_packing code\_Version

BZT52-B5V1FN2-AU\_R1\_000A1

## For example:



Packing Code XX					Version Code XXXXX			
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code		
Tape and Ammunition Box (T/B)	Α	N/A	0	HF	0	serial number		
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number		
Bulk Packing (B/P)	В	13"	2					
Tube Packing (T/P)	Т	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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