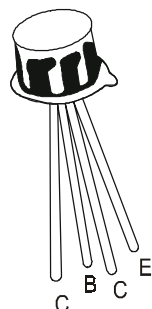


NPN SILICON PLANAR RF TRANSISTOR

BF115



**TO-72
Metal Can Package**

ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V_{CBO}	50	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	30	mA
Base Current Continuous	I_B	1	mA
Total Power Dissipation @ Ta=45°C	P_D	145	mW
Operating & Storage Junction Temperature Range	T_j, T_{stg}	-55 to +175	°C

THERMAL RESISTANCE

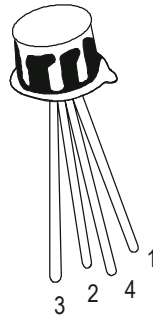
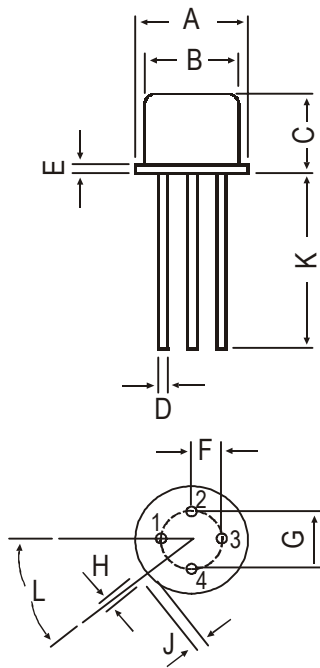
Junction to Ambient	$R_{th(j-a)}$	900	°C/W
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ELECTRICAL CHARACTERISTICS (Ta=25° C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	VALUE			UNIT
			MIN	TYP	MAX	
Collector Emitter Breakdown Voltage	BV_{CEO}^*	$I_C=2mA, I_B=0$	30			V
Collector Base Breakdown Voltage	BV_{CBO}	$I_C=10\mu A, I_E=0$	50			V
Emitter Base Breakdown Voltage	BV_{EBO}	$I_E=10\mu A, I_C=0$	5			V
Collector Cut off Current	I_{CBO}	$V_{CB}=20V, I_E=0, Ta=175^{\circ}C$		0.5		μA
DC Current Gain	h_{FE}	$I_C=1mA, V_{CE}=10V$	48		167	
		$I_C=20mA^*, V_{CE}= 2V$	40			
Base Emitter On Voltage	$V_{BE(on)}$	$I_C=1mA, V_{CE}=10V$	600	700	740	mV
		$I_C=20mA, V_{CE}= 2V^*$			1000	mV
<u>DYNAMIC CHARACTERISTICS</u>						
Transition Frequency	f_T	$I_C=1.0mA, V_{CE}=10V, f=100MHz$		230		MHz
Feedback Capacitance	C_{re}	$V_{CB}=10V, I_C=1mA, f=0.45MHz$		0.65	0.8	pF
Noise Figure	NF	$V_{CE}=10V, I_C=1mA, R_g=300K\Omega,$				
		$f=200KHz$		1.5		dB
		$f=1MHz$		1.2		dB

Pulse Test: pulse Width $\leq 300\mu S$, Duty Cycle $\leq 2\%$

TO-72 Metal Can Package



PIN CONFIGURATION

1. EMITTER
2. BASE
3. COLLECTOR
4. CASE

All dimensions in mm.

DIM	MIN.	MAX.
A	5.24	5.84
B	4.52	4.95
C	4.31	5.33
D	0.40	0.53
E	—	0.76
F	1.14	1.39
G	2.28	2.97
H	0.91	1.17
J	0.71	1.22
K	12.70	—
L	12 DEG	48 DEG

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-72	1 K/Polybag	325 gm/1K pcs	3" x 7.5" x 7.5"	5K	17" x 15" x 13.5"	80K	32 kgs

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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