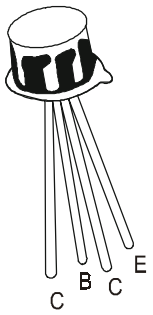
NPN SILICON PLANAR RF TRANSISTOR

BF115



TO-72
Metal Can Package

ABSOLUTE MAXIMUM RATINGS (Ta=25ºC unless specified otherwise)

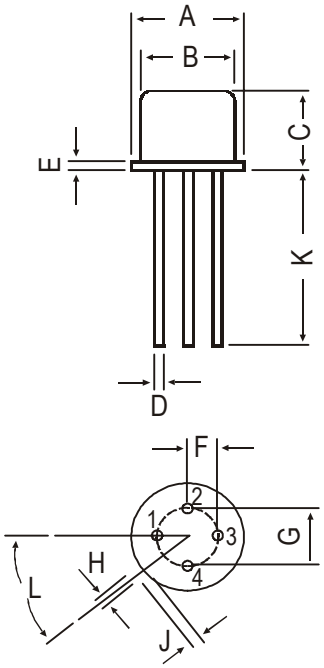
DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V_{CBO}	50	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	30	mA
Base Current Continuous	I_B	1	mA
Total Power Dissipation @ Ta=45ºC	P_D	145	mW
Operating & Storage Junction Temperature Range	T_j, T_{stg}	-55 to +175	°C
THERMAL RESISTANCE			
Junction to Ambient	$R_{th(j-a)}$	900	°C/W

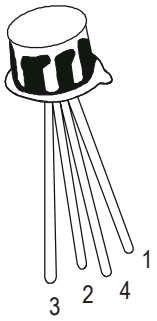
ELECTRICAL CHARACTERISTICS (Ta=25º C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	VALUE MIN	VALUE TYP	VALUE MAX	UNIT
Collector Emitter Breakdown Voltage	BV_{CEO}*	I_C=2mA, I_B=0	30			V
Collector Base Breakdown Voltage	BV_{CBO}	I_C=10µA, I_E=0	50			V
Emitter Base Breakdown Voltage	BV_{EBO}	I_E=10µA, I_C=0	5			V
Collector Cut off Current	I_{CBO}	V_{CB}=20V, I_E=0, Ta=175ºC		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
DYNAMIC CHARACTERISTICS						
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, Rg=300KΩ,				
		f=200KHz		1.5		dB
		f=1MHz		1.2		dB

Pulse Test: pulse Width ≤300µS, Duty Cycle≤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

TO-72
Metal Can Package

Disclaimer

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