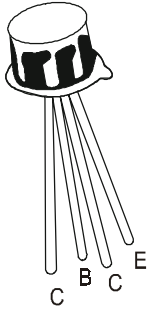


**NPN SILICON PLANAR RF TRANSISTOR**

**BF115**



**TO-72  
Metal Can Package**

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

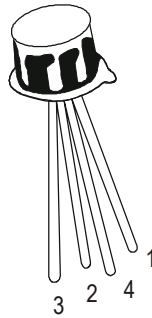
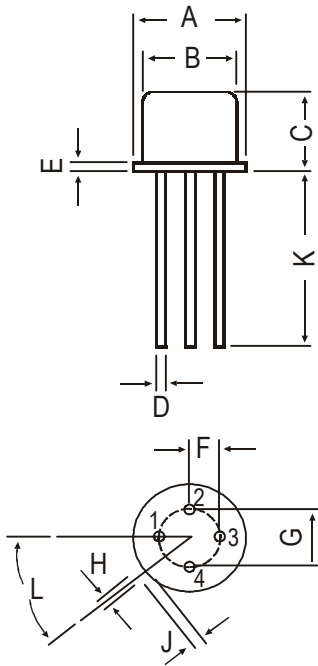
DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	$V_{CBO}$	50	V
Collector Emitter Voltage	$V_{CEO}$	30	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	30	mA
Base Current Continuous	$I_B$	1	mA
Total Power Dissipation @ Ta=45°C	$P_D$	145	mW
Operating & Storage Junction Temperature Range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

**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	$I_{CBO}$	$V_{CB}=20V, I_E=0, T_a=175^\circ C$		0.5		$\mu A$
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
<b>DYNAMIC CHARACTERISTICS</b>						
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**

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