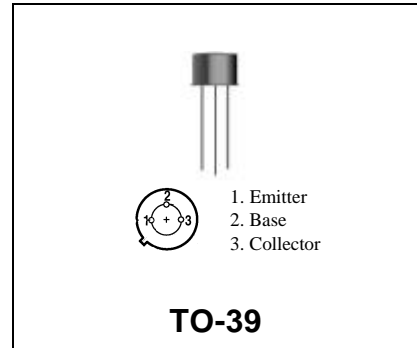


MRF5943C

**RF & MICROWAVE DISCRETE
LOW POWER TRANSISTORS**

Features

- Maximum Available Gain = 17dB @ 300MHz
- High f_T – 1.2 GHz typical



DESCRIPTION:

Designed for general-purpose RF amplifier applications, such as pre-drivers, drivers, and oscillators.

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C)

Symbol	Parameter	Value	Unit
V _{CEO}	Collector-Emitter Voltage	30	V
V _{CBO}	Collector-Base Voltage	40	V
V _{EBO}	Emitter-Base Voltage	3.5	V
I _C	Collector Current	400	mA
P _D	Total Device Dissipation	1.0	W
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Thermal Resistance, Junction – Case	125	°C/W
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ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

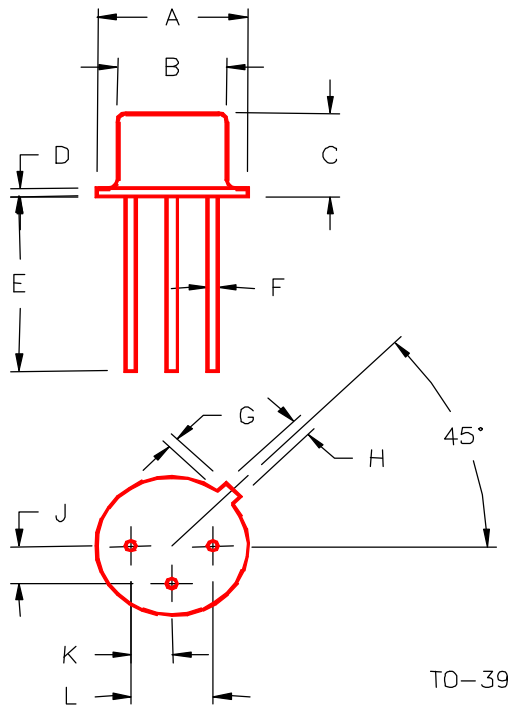
Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
BV _{CEO}	I _C = 5 mA, I _B = 0	30	-	-	V
BV _{CBO}	I _C = 0.1 mA, I _E = 0	40	-	-	V
BV _{EBO}	I _E = 0.1 mA, I _C = 0	3.5	-	-	V
I _{CBO}	V _{CB} = 15 V, V _{BE} = 0 V	-	-	50	μA
I _{CEO}	V _{CE} = 20 V, V _{BE} = 0 V	-	-	10	μA
h _{FE}	I _C = 50 mA, V _{CE} = 15 V	25	-	300	

DYNAMIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
F _{tau}	Current-Gain Bandwidth Product (I _C = 35 mA, V _{CE} = 15 V, f = 100 MHz)	-	1.2	-	GHz
NF	I _C = 35 mA, V _{CE} = 15 V, f = 200 MHz	-	5.5	-	dB
G _{U max}	I _C = 10 mA, V _{CE} = 15 V, f = 200 MHz	-	12	-	dB

PACKAGE MECHANICAL DATA

PACKAGE STYLE M246



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.350/8,89	.370/9,40	J	.095/2,41	.105/2,67
B	.315/8,00	.335/8,51	K	.095/2,41	.105/2,67
C	.240/6,10	.260/6,60	L	.190/4,83	.210/5,33
D	.015/0,38	.045/1,14			
E	.500/12,70				
F	.016/0,41	.019/0,48			
G	.029/0,74	.040/1,02			
H	.028/0,71	.034/0,86			