

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **2N6093** is a High Gain Linear RF Power Amplifier Used in Class A or Class B Applications With Individual Ballast Emitter Resistor and Built in Temperature Sensing Diode.

MAXIMUM RATINGS

I_C	10 A
V_{CE}	35 V
P_{DISS}	83.3 W @ T _C = 75 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +200 °C
θ_{JC}	1.50 °C/W

PACKAGE STYLE TO-217

SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
A	0.285	0.325	7.50	8.25	-
B ₁	0.135	0.150	3.43	3.81	-
B ₂	0.235	0.250	5.97	6.35	-
B ₃	0.055	0.065	1.40	1.65	5
φ _B	0.020	0.025	0.508	0.635	4 Pin
φ _D	0.650	0.680	16.51	17.27	-
E	0.360	0.380	9.15	9.65	-
e	0.111	0.151	2.82	3.82	1
et	0.213	0.233	5.42	5.91	1
L	0.114	0.133	2.90	3.37	-
φM	0.220	0.245	5.59	6.23	-
N	0.420	0.460	10.67	11.68	-
N ₁	-	0.030	-	2.28	-
φ	-	0.015	-	0.381	-
φW	-	-	-	-	2

1 = Emitter & Diode Cathode
2 = Collector
3 = Base
4 = Diode Anode

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	I _C = 200 mA	35			V
BV_{CES}	I _C = 200 mA	70			V
I_{CES}	V _{CE} = 60 V T _C = 55 °C			30	mA
BV_{EBO}	I _E = 20 mA	3.5			V
h_{FE}	V _{CE} = 6.0 V I _C = 5.0 A	20			---
V_F	I _F = 10 mA			0.8	V
h_{fe}	V _{CE} = 28 V I _C = 1.0 A f = 50 MHz	2.0			---
C_{OB}	V _{CB} = 30 V f = 1.0 MHz			250	pF
P_{IE}	V _{CC} = 28 V f = 30 MHz I _C = 20 mA P _{OE} = 37.5 W P _{OE} = 75.0 W			1.88 3.75	W
G_{PE}	V _{CC} = 28 V I _C = 20 mA P _{OE} = 75.0 W f = 30 MHz	13			dB
η_C		40			%
IMD					-30

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REV. A

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Specifications are subject to change without notice.