



2N6093

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 @ $T_C = 75^\circ C$
T_J	$-65^\circ C$ to $+200^\circ C$
T_{STG}	$-65^\circ C$ to $+200^\circ C$
θ_{JC}	1.50 $^\circ C/W$

PACKAGE STYLE TO-217

SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
A	0.295	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
∅b	0.020	0.025	0.508	0.635	4 Flat
∅D	0.650	0.680	16.51	17.27	-
E	0.360	0.380	9.15	9.65	-
e	0.111	0.131	2.82	3.32	1
eT	0.213	0.233	5.42	5.91	1
L	0.114	0.133	2.90	3.37	-
∅M	0.220	0.249	5.59	6.23	-
N	0.420	0.480	10.67	11.68	-
N ₁	-	0.030	-	2.28	-
∅	-	0.015	-	0.381	-
∅W	-	-	-	-	2

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

1/4-28 UNF Thread

CHARACTERISTICS $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	$I_C = 200\text{ mA}$	35			V
BV_{CES}	$I_C = 200\text{ mA}$	70			V
I_{CES}	$V_{CE} = 60\text{ V}$ $T_C = 55^\circ C$			30	mA
BV_{EBO}	$I_E = 20\text{ mA}$	3.5			V
h_{FE}	$V_{CE} = 6.0\text{ V}$ $I_C = 5.0\text{ A}$	20			---
V_F	$I_F = 10\text{ mA}$			0.8	V
h_{fe}	$V_{CE} = 28\text{ V}$ $I_C = 1.0\text{ A}$ $f = 50\text{ MHz}$	2.0			---
C_{OB}	$V_{CB} = 30\text{ V}$ $f = 1.0\text{ MHz}$			250	pF
P_{IE}	$V_{CC} = 28\text{ V}$ $I_C = 20\text{ mA}$ $P_{OE} = 37.5\text{ W}$ $f = 30\text{ MHz}$ $P_{OE} = 75.0\text{ W}$			1.88 3.75	W
G_{PE}	$V_{CC} = 28\text{ V}$ $I_C = 20\text{ mA}$ $P_{OE} = 75.0\text{ W}$ $f = 30\text{ MHz}$	13			dB
η_C		40			%
IMD					-30

