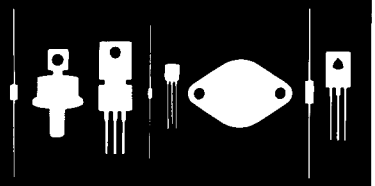
Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, New York 11788



2N5088
2N5089

NPN SILICON TRANSISTORS

JEDEC TO-92 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5088, 2N5089 series are Molded Epoxy Silicon NPN Signal Transistors designed for low-level, low noise amplifier applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL	2N5088	2N5089	UNIT
Collector-Base Voltage	V_{CBO}	35	30	V
Collector-Emitter Voltage	V_{CEO}	30	25	V
Emitter-Base Voltage	V_{EBO}	4.5	4.5	V
Collector Current	I_C	50	50	mA
Power Dissipation	P_D	625	625	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 TO +150		°C
Thermal Resistance	θ_{JA}	0.2	0.2	°C/mW

ELECTRICAL CHARACTERISTICS (T_A=25°C)

SYMBOL	TEST CONDITIONS	2N5088 MIN	2N5088 MAX	2N5089 MIN	2N5089 MAX	UNIT
I_{CBO}	V_{CB}=20V		50		---	nA
I_{CBO}	V_{CB}=15V		---		50	nA
I_{EBO}	V_{EB}=3.0V		50		50	nA
I_{EBO}	V_{EB}=4.5V		100		100	nA
BV_{CBO}	I_C=100µA	35		30		V
BV_{CEO}	I_C=1.0mA	30		25		V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA		0.5		0.5	V
$V_{BE(ON)}$	V_{CE}=5.0V, I_C=10mA		0.8		0.8	V
h_{FE}	V_{CE}=5.0V, I_C=100µA	300	900	400	1200	
h_{FE}	V_{CE}=5.0V, I_C=1.0mA	350		450		
h_{FE}	V_{CE}=5.0V, I_C=10mA	300		400		
h_{fe}	V_{CE}=5.0V, I_C=1.0mA, f=1.0kHz	350	1400	450	1800	
f_T	V_{CE}=5.0V, I_C=500µA, f=20MHz	50		50		MHz
C_{cb}	V_{CB}=5.0V, I_E=0, f=100kHz		4.0		4.0	pF
C_{eb}	V_{BE}=0.5V, I_C=0, f=100kHz		1.0		1.0	pF
NF	V_{CE}=5.0V, I_C=100µA, R_S=10kΩ f=10Hz TO 15.7kHz		3.0		2.0	dB

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