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Manufacturers of World Class Discrete Semiconductors

2N5086
2N5087

PNP SILICON TRANSISTORS

JEDEC TO-92 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5086, 2N5087 series are molded epoxy silicon PNP signal transistors designed for low level, low noise amplifier applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL		UNIT
Collector-Base Voltage	V _{CB0}	50	V
Collector-Emitter Voltage	V _{CE0}	50	V
Emitter-Base Voltage	V _{EB0}	3.0	V
Collector Current	I _C	50	mA
Power Dissipation	P _D	625	mW
Power Dissipation	P _D	1.5	W
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 TO +150	°C
Thermal Resistance	θ _{JA}	0.2	°C/mW
Thermal Resistance	θ _{JC}	83.3	°C/W

ELECTRICAL CHARACTERISTICS (T_A=25°C)

SYMBOL	TEST CONDITIONS	2N5086		2N5087		UNIT
		MIN	MAX	MIN	MAX	
I _{CBO}	V _{CB} =10V		10		10	nA
I _{CBO}	V _{CB} =35V		50		50	nA
I _{EB0}	V _{EB} =3.0V		50		50	nA
BV _{CB0}	I _C =100μA	50		50		V
BV _{CE0}	I _C =1.0mA	50		50		V
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA		0.3		0.3	V
V _{BE(ON)}	V _{CE} =5.0V, I _C =1.0mA		0.85		0.85	V
h _{FE}	V _{CE} =5.0V, I _C =100μA	150	500	250	800	
h _{FE}	V _{CE} =5.0V, I _C =1.0mA	150		250		
h _{FE}	V _{CE} =5.0V, I _C =10mA	150		250		
h _{fe}	V _{CE} =5.0V, I _C =1.0mA, f=1.0kHz	150	600	250	900	
f _T	V _{CE} =5.0V, I _C =500μA, f=20MHz	40		40		MHz
C _{ob}	V _{CB} =5.0V, I _E =0, f=100kHz		4.0		4.0	pF
NF	V _{CE} =5.0V, I _C =20μA, R _S =10kΩ, f=10Hz TO 15.7kHz		3.0		2.0	dB
NF	V _{CE} =5.0V, I _C =100μA, R _S =3.0kΩ, f=1.0kHz		3.0		2.0	dB