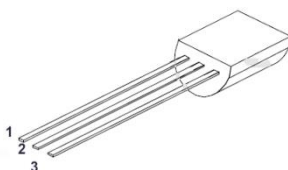


Image serves as a representation only.

■ **ABSTRACT**

The MPS571 is a silicon epitaxial transistor in NPN configuration. This high frequency, low noise amplifier boasts a high power gain. The transistor is encased in a compact three pin durable plastic TO-92 package.



TO-92

Pin Assignment		
1	2	3
B	E	C

■ **ABSOLUTE MAXIMUM RATING** ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-base voltage	V_{CB0}	20	V
Collector-emitter voltage	V_{CEO}	12	V
Emitter-base voltage	V_{EBO}	3	V
Collector current	I_C	100	mA
Total power dissipation	P_T	600	mW
Junction Temperature	T_J	125	$^{\circ}\text{C}$
Operating Temperature	T_{OPR}	-20 ~ +85	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-40 ~ +150	$^{\circ}\text{C}$

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ **ELECTRICAL CHARACTERISTICS** ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cutoff Current	I_{CBO}	$V_{CB}=10\text{V}, I_E=0$			1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=1\text{V}, I_C=0$			1.0	μA
DC Current Gain	h_{FE}	$V_{CE}=10\text{V}, I_C=20\text{mA}$	50		300	
Gain bandwidth Product	f_T	$V_{CE}=10\text{V}, I_C=20\text{mA}$		7		GHz
Feed-Back Capacitance	C_{re}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$			1.0	pF
Noise Figure	NF	$V_{CE}=10\text{V}, I_C=7\text{mA}, f=1.0\text{GHz}$		1.1		dB

