MPSA18

NPN SILICON TRANSISTOR

TO-92 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MPSA18 is a small signal, low noise NPN silicon transistor designed for general purpose amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	45	V
Collector-Emitter Voltage	V_{CEO}	45	V
Emitter-Base Voltage	V_{EBO}	6.5	V
Continuous Collector Current	I_C	200	mA
Power Dissipation	P_D	625	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	200	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=30V		50	nA
BV_{CBO}	I_C=100μA	45		V
BV_{CEO}	I_C=10mA	45		V
BV_{EBO}	I_E=10μA	6.5		V
$V_{CE(SAT)}$	I_C=10mA, I_B=0.5mA		0.2	V
$V_{CE(SAT)}$	I_C=50mA, I_B=5.0mA		0.3	V
$V_{BE(ON)}$	V_{CE}=5.0V, I_C=1.0mA		0.7	V
h_{FE}	V_{CE}=5.0V, I_C=10μA	400		
h_{FE}	V_{CE}=5.0V, I_C=100μA	500		
h_{FE}	V_{CE}=5.0V, I_C=1.0mA	500		
h_{FE}	V_{CE}=5.0V, I_C=10mA	500	1500	
f_T	V_{CE}=5.0V, I_C=1.0mA, f=100MHz	100		MHz
C_{ob}	V_{CB}=5.0V, I_E=0, f=1.0MHz		3.0	pF
C_{ib}	V_{EB}=0.5V, I_C=0, f=1.0MHz		6.5	pF
NF	V_{CE}=5.0V, I_C=100μA, R_S=10kΩ, f=1.0kHz		1.5	dB

R0 (3-February 2012)

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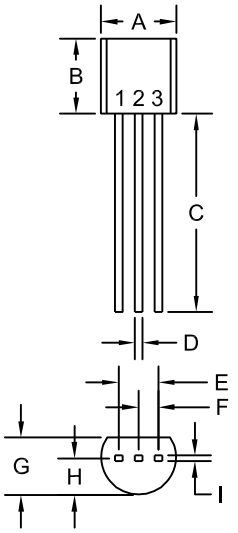
TO-92 CASE - MECHANICAL OUTLINE



R1

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)

LEAD CODE:
1) Emitter
2) Base
3) Collector

MARKING:
FULL PART NUMBER