

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors
www.centrasemi.com

MPS712

PNP DARLINGTON TRANSISTOR

TO-92 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR MPS712 is a silicon PNP Darlington Transistor, manufactured by the epitaxial planar process, designed for applications requiring extremely high gain.

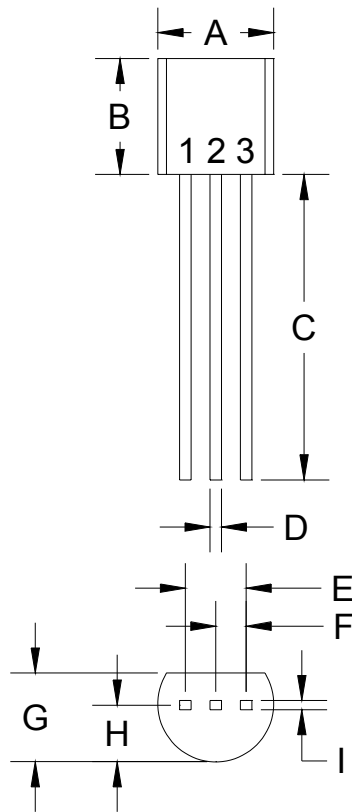
MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

	<u>SYMBOL</u>		<u>UNITS</u>
Collector-Base Voltage	V_{CB0}	80	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	10	V
Collector Current	I_C	800	mA
Peak Collector Current	I_{CM}	2.0	A
Power Dissipation	P_D	1.0	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance	θ_{JA}	125	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
I_{CBO}	$V_{CB}=60\text{V}$		100	nA
I_{EBO}	$V_{EB}=8.0\text{V}$		100	nA
BV_{CBO}	$I_C=10\mu\text{A}$	80		V
BV_{CEO}	$I_C=10\text{mA}$	60		V
BV_{EBO}	$I_E=10\mu\text{A}$	10		V
$V_{CE(SAT)}$	$I_C=800\text{mA}, I_B=8.0\text{mA}$		1.25	V
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=800\text{mA}$		1.80	V
h_{FE}	$V_{CE}=5.0\text{V}, I_C=100\text{mA}$	5K		
h_{FE}	$V_{CE}=5.0\text{V}, I_C=500\text{mA}$	10K		

(SEE REVERSE SIDE)

TO-92 PACKAGE - MECHANICAL OUTLINE

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	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

R1

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