MPSA62 MPSA65
MPSA63 MPSA66
MPSA64

SILICON
PNP DARLINGTON TRANSISTORS



TO-92 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MPSA62 series devices are silicon PNP Darlington transistors, manufactured by the epitaxial planar process, designed for applications requiring extremely high gain.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**	**MPSA63 MPSA62**	**MPSA65 MPSA64**	**UNITS MPSA66**	**UNITS**
Collector-Base Voltage	V_{CBO}	20	30	30	V
Collector-Emitter Voltage	V_{CES}	20	30	30	V
Emitter-Base Voltage	V_{EBO}	10	10	8.0	V
Continuous Collector Current	I_C		500		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)

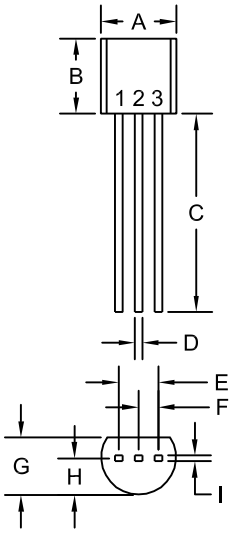
		MPSA62		**MPSA63**		**MPSA64**		**MPSA65**		**MPSA66**		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=15V	-	100	-	-	-	-	-	-	-	-	nA
I_{CBO}	V_{CB}=30V	-	-	-	100	-	100	-	100	-	100	nA
I_{EBO}	V_{EB}=10V	-	100	-	100	-	100	-	-	-	-	nA
I_{EBO}	V_{EB}=8.0V	-	-	-	-	-	-	-	100	-	100	nA
BV_{CES}	I_C=100μA	20	-	30	-	30	-	30	-	30	-	V
$V_{CE(SAT)}$	I_C=10mA, I_B=10μA	-	1.0	-	-	-	-	-	-	-	-	V
$V_{CE(SAT)}$	I_C=100mA, I_B=0.1mA	-	-	-	1.5	-	1.5	-	1.5	-	1.5	V
$V_{BE(ON)}$	V_{CE}=5.0V, I_B=10mA	-	1.4	-	-	-	-	-	-	-	-	V
$V_{BE(ON)}$	V_{CE}=5.0V, I_B=100mA	-	-	-	2.0	-	2.0	-	2.0	-	2.0	V
h_{FE}	V_{CE}=5.0V, I_C=10mA	20K	-	5K	-	10K	-	50K	-	75K	-	
h_{FE}	V_{CE}=5.0V, I_C=100mA	-	-	10K	-	20K	-	20K	-	40K	-	
f_T	V_{CE}=5.0V, I_C=100mA, f=100MHz	-	-	125	-	125	-	-	-	-	-	MHz
f_T	V_{CE}=10V, I_C=30mA, f=50MHz	-	-	-	-	-	-	100	-	100	-	MHz
C_{ob}	V_{CB}=10V, I_E=0, f=100kHz	2.5 (TYP)		2.5 (TYP)		2.5 (TYP)		2.5 (TYP)		2.5 (TYP)		pF
NF	V_{CE}=5.0V, I_C=1.0mA, R_S=100kΩ, f=1.0kHz	2.0 (TYP)		2.0 (TYP)		2.0 (TYP)		2.0 (TYP)		2.0(TYP)		dB

R1 (18-March 2014)

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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

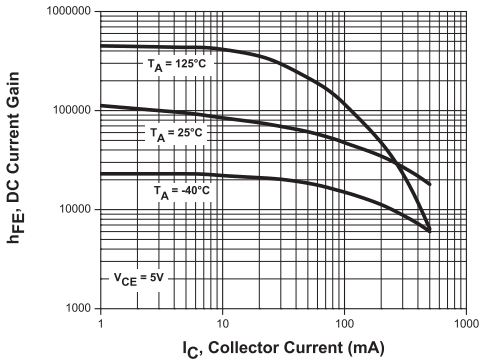
MARKING:
FULL PART NUMBER

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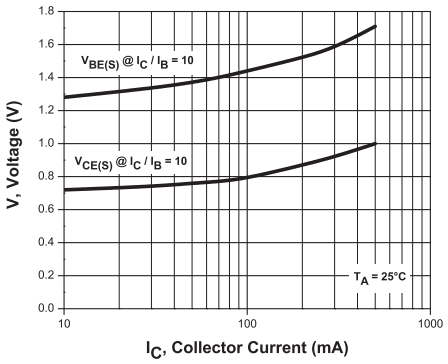
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TYPICAL ELECTRICAL CHARACTERISTICS

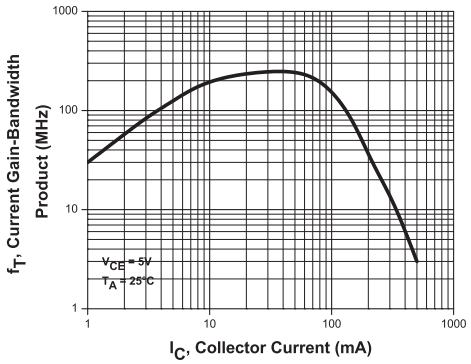
DC Current Gain



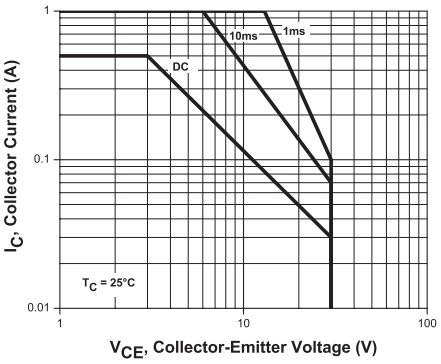
"ON" Voltage



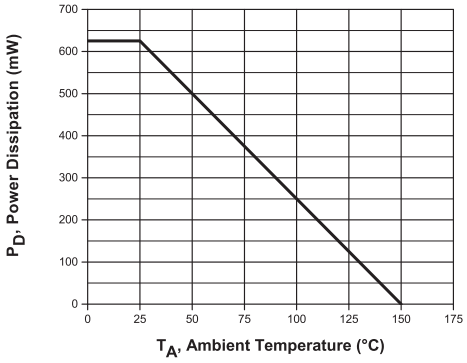
Current Gain-Bandwidth Product



Safe Operating Area



Power Derating



R1 (18-March 2014)