

MPSA62 MPSA65  
MPSA63 MPSA66  
MPSA64

**SILICON  
PNP DARLINGTON TRANSISTORS**



**TO-92 CASE**



[www.centrasemi.com](http://www.centrasemi.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:** ( $T_A=25^\circ\text{C}$ )

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		$^\circ\text{C}$
Thermal Resistance	$\Theta_{JA}$		200		$^\circ\text{C/W}$

SYMBOL	MPSA62		MPSA63		MPSA65		MPSA66		UNITS
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
$V_{CBO}$	20		30		30		30		V
$V_{CES}$	20		30		30		30		V
$V_{EBO}$	10		10		8.0				V
$I_C$			500						mA
$P_D$			625						mW
$T_J, T_{stg}$			-65 to +150						$^\circ\text{C}$
$\Theta_{JA}$			200						$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

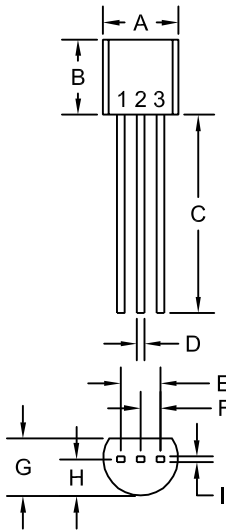
SYMBOL	TEST CONDITIONS	MPSA62		MPSA63		MPSA64		MPSA65		MPSA66		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
$I_{CBO}$	$V_{CB}=15\text{V}$	-	100	-	-	-	-	-	-	-	-	nA
$I_{CBO}$	$V_{CB}=30\text{V}$	-	-	-	100	-	100	-	100	-	100	nA
$I_{EBO}$	$V_{EB}=10\text{V}$	-	100	-	100	-	100	-	-	-	-	nA
$I_{EBO}$	$V_{EB}=8.0\text{V}$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

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**TO-92 CASE - MECHANICAL OUTLINE**



R1

SYMBOL	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

**MARKING:**

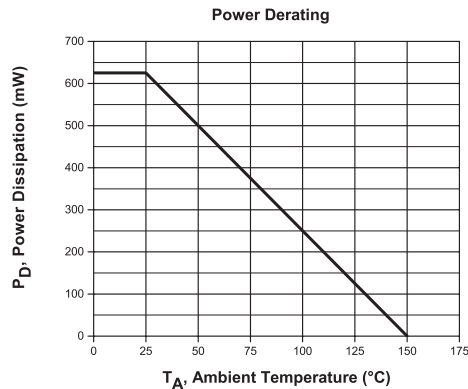
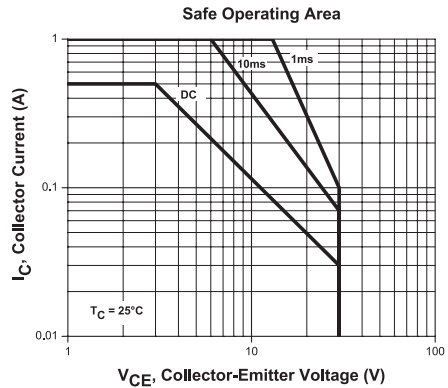
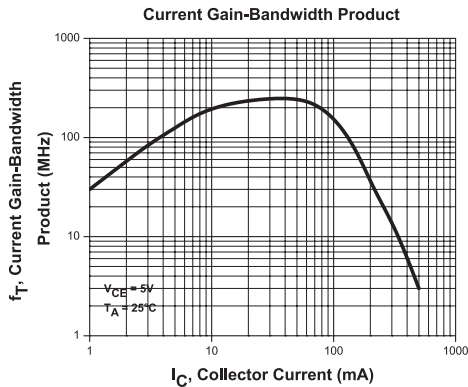
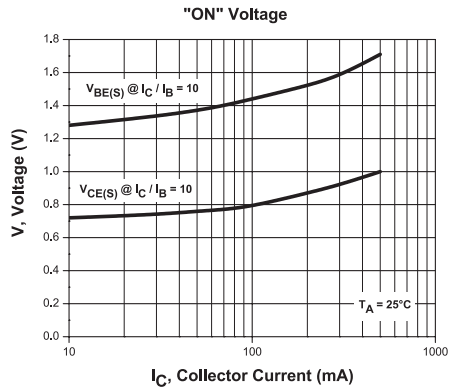
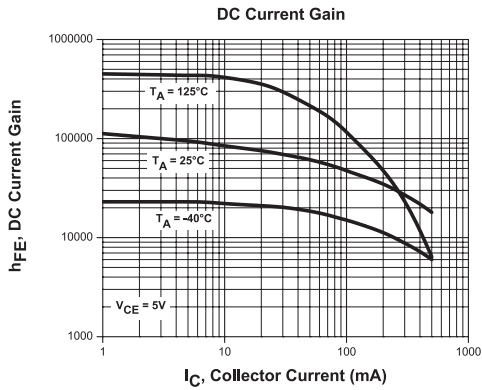
**FULL PART NUMBER**

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TYPICAL ELECTRICAL CHARACTERISTICS



R2 (30-November 2023)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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PDN ID:	PDN01069
Notification Date:	2/06/18
Last Buy Date:	N/A
Last Shipment Date	N/A

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You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor Corp.

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