MPS650 MPS651 NPN
MPS750 MPS751 PNP

COMPLEMENTARY SILICON TRANSISTORS

TO-92 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MPS650, MPS750 series devices are complementary silicon transistors designed for general purpose amplifier and switching applications requiring high gain at high collector current.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C unless otherwise noted)

	SYMBOL	MPS650 / MPS750	MPS651 / MPS751	UNITS
Collector-Base Voltage	V_{CBO}	60	80	V
Collector-Emitter Voltage	V_{CEO}	40	60	V
Emitter-Base Voltage	V_{EBO}	5.0		V
Continuous Collector Current	I_C	2.0		A
Power Dissipation	P_D	625		mW
Power Dissipation (T_C=25°C)	P_D	1.5		W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150		°C
Thermal Resistance	Θ_{JA}	200		°C/W
Thermal Resistance	Θ_{JC}	83.3		°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C)

		MPS650 / MPS750		MPS651 / MPS751		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	UNITS
I_{CBO}	V_{CB}=60V	-	100	-	-	nA
I_{CBO}	V_{CB}=80V	-	-	-	100	nA
I_{EBO}	V_{EB}=4.0V	-	100	-	100	nA
BV_{CBO}	I_C=100μA	60	-	80	-	V
BV_{CEO}	I_C=10mA	40	-	60	-	V
BV_{EBO}	I_E=10μA	5.0	-	5.0	-	V
$V_{CE(SAT)}$	I_C=1.0A, I_B=100mA	-	0.3	-	0.3	V
$V_{CE(SAT)}$	I_C=2.0A, I_B=200mA	-	0.5	-	0.5	V
$V_{BE(SAT)}$	I_C=1.0A, I_B=100mA	-	1.2	-	1.2	V
$V_{BE(ON)}$	V_{CE}=2.0V, I_C=1.0A	-	1.0	-	1.0	V
h_{FE}	V_{CE}=2.0V, I_C=50mA	75	-	75	-	
h_{FE}	V_{CE}=2.0V, I_C=500mA	75	-	75	-	
h_{FE}	V_{CE}=2.0V, I_C=1.0A	75	-	75	-	
h_{FE}	V_{CE}=2.0V, I_C=2.0A	40	-	40	-	
f_T	V_{CE}=5.0V, I_C=50mA, f=100MHz	75	-	75	-	MHz

R1 (2-December 2014)

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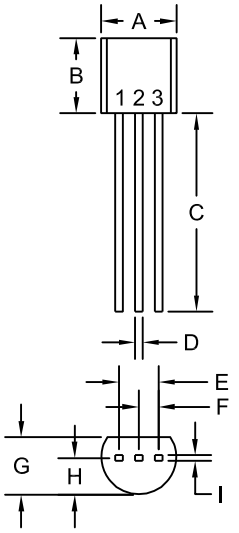
TO-92 CASE - MECHANICAL OUTLINE



R1

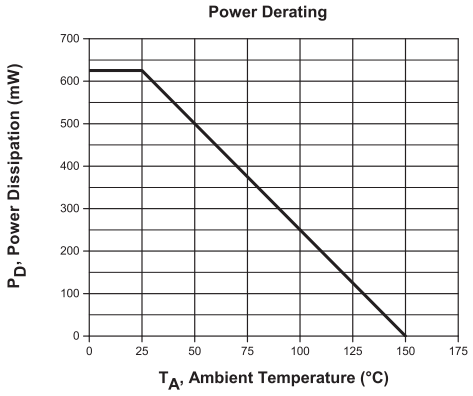
DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)

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

MARKING:
FULL PART NUMBER

TYPICAL ELECTRICAL CHARACTERISTICS



R1 (2-December 2014)

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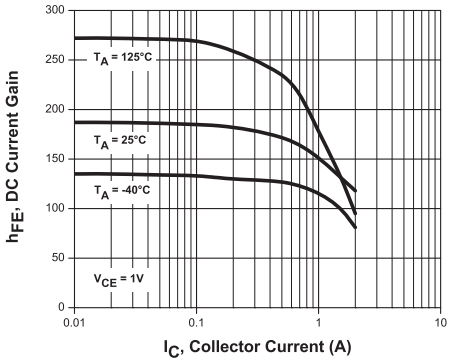
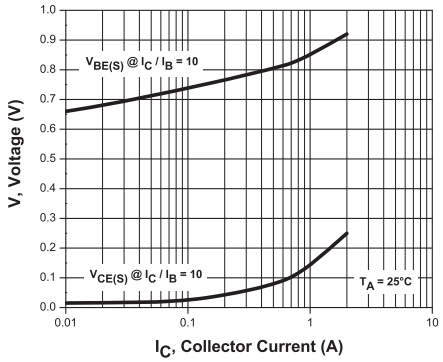
COMPLEMENTARY SILICON TRANSISTORS

NPN TYPICAL ELECTRICAL CHARACTERISTICS

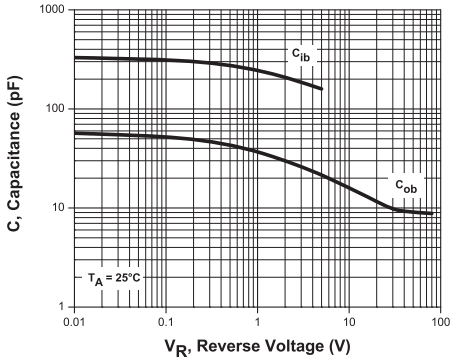
DC Current Gain



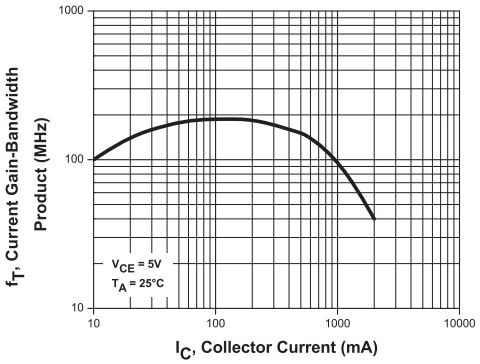
"ON" Voltage



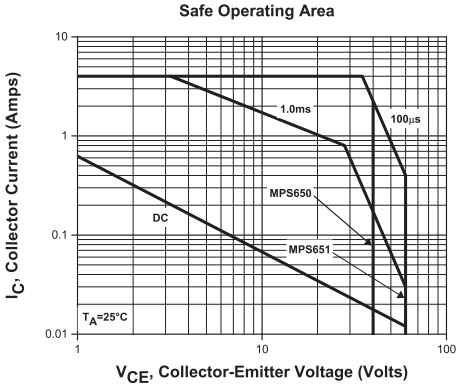
Capacitance



Current Gain-Bandwidth Product



Safe Operating Area



R1 (2-December 2014)

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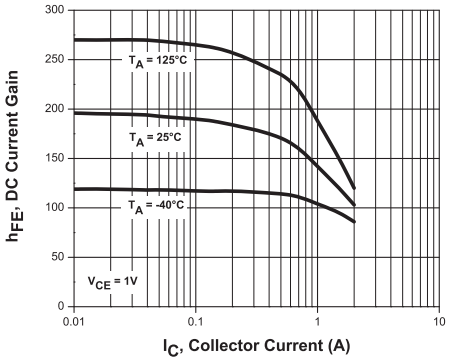
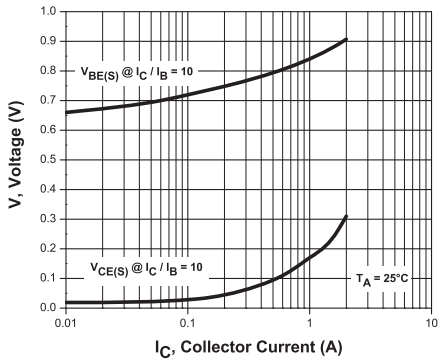
PNP TYPICAL ELECTRICAL CHARACTERISTICS

DC Current Gain



"ON" Voltage



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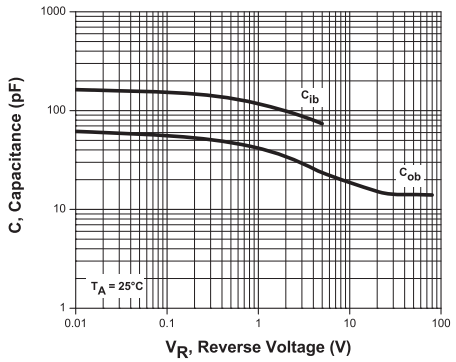
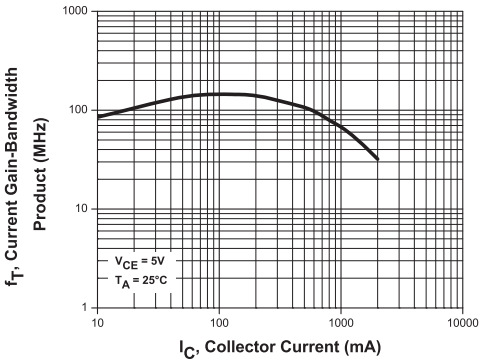
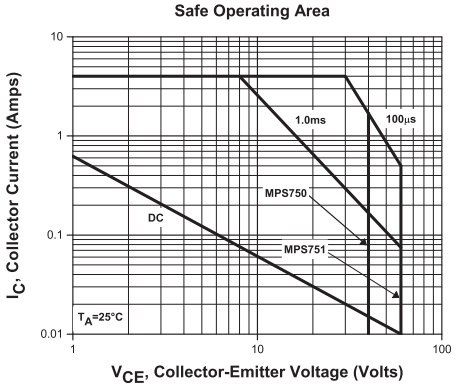


Current Gain-Bandwidth Product



Safe Operating Area



R1 (2-December 2014)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES

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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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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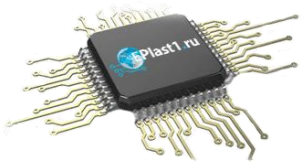
Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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