

MPS455
SILICON
NPN TRANSISTOR



TO-92 CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MPS455 is a silicon NPN medium power transistor, manufactured by the epitaxial planar process, designed for general purpose amplifier and switching applications.

MARKING: FULL PART NUMBER

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

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Peak Collector Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL		UNITS
V_{CBO}	160	V
V_{CEO}	140	V
V_{EBO}	5.0	V
I_C	1.0	A
I_{CM}	2.0	A
P_D	1.0	W
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
θ_{JA}	125	$^\circ\text{C/W}$

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

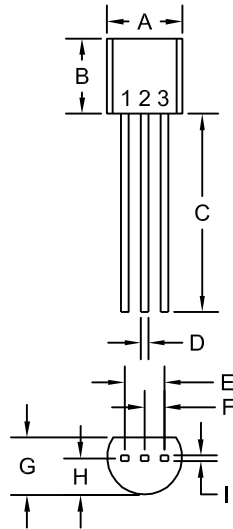
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CBO}	$V_{CB}=140\text{V}$			100	nA
I_{EBO}	$V_{EB}=4.0\text{V}$			100	nA
BV_{CBO}	$I_C=100\mu\text{A}$	160			V
BV_{CEO}	$I_C=10\text{mA}$	140			V
BV_{EBO}	$I_E=100\mu\text{A}$	5.0			V
$V_{CE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$			700	mV
h_{FE}	$V_{CE}=10\text{V}, I_C=150\text{mA}$	100		300	
h_{FE}	$V_{CE}=10\text{V}, I_C=1.0\text{A}$		10		
f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=100\text{MHz}$	100			MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$			15	pF

R1 (7-February 2014)

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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:

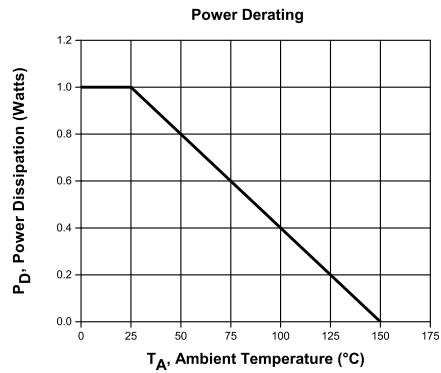
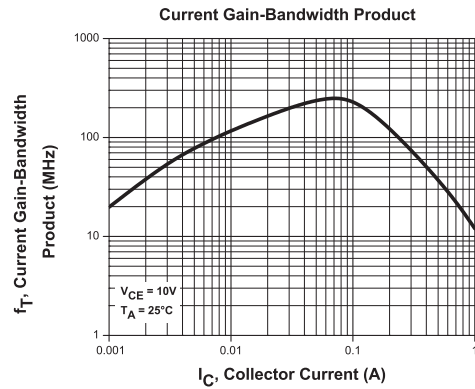
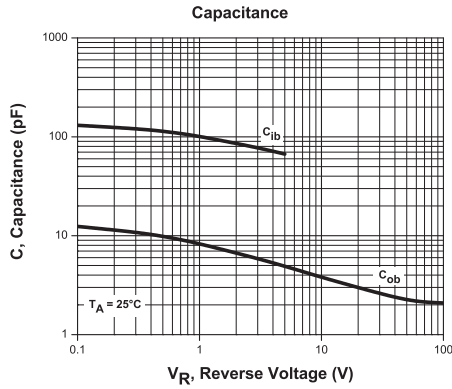
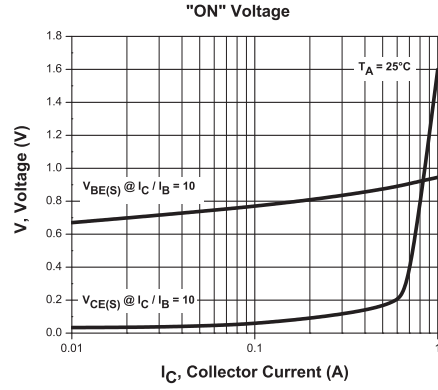
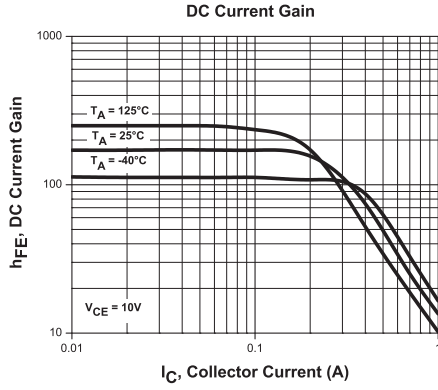
FULL PART NUMBER

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TYPICAL ELECTRICAL CHARACTERISTICS



R1 (7-February 2014)