Elektronische Bauelemente

MPSA06

NPN

Plastic-Encapsulate Transistor

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

FEATURES

*Low current (max. 500mA)

*Low voltage (max. 80V).

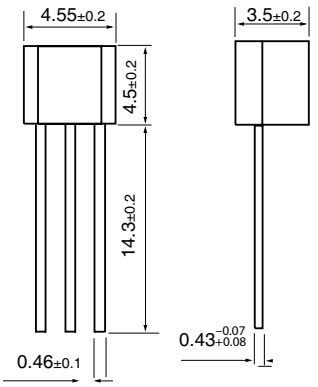
APPLICATIONS

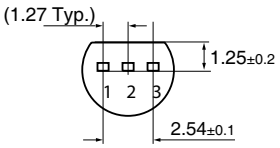
*General purpose switching and amplification.

DESCRIPTION

NPN transistor in a TO-92; plastic package.
PNP complement: MPSA56.

TO-92





1: Emitter
2: Base
3: Collector

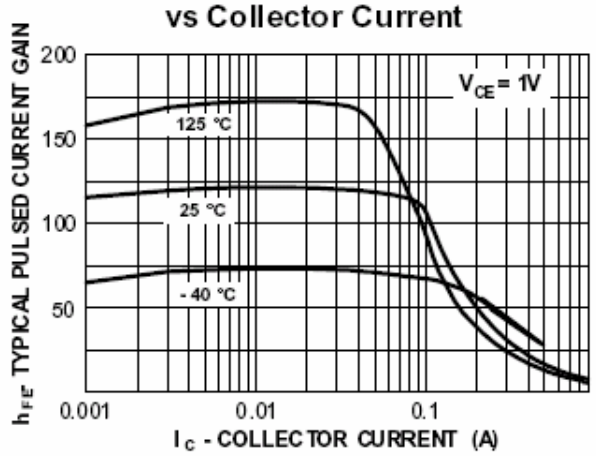
Symbol	Parameter	Value	Units
P_{CM}	Power Dissipation	0.625	W
I_{CM}	Collector Current	0.5	A
$V_{(BR)CBO}$	Collector-Base Voltage	80	V
T_{stg}	Storage Temperature	-55~+150	°C
T_J	Junction Temperature	150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25 °C unless otherwise specified)

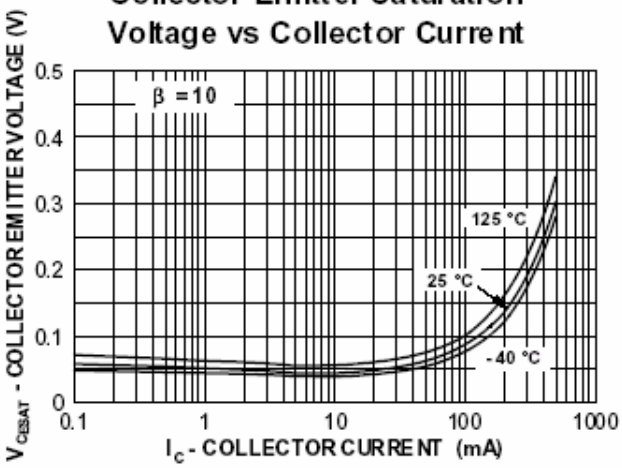
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic=100μA, I_E=0	80		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= 1mA , I_B=0	80		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	4		V
Collector cut-off current	I_{CBO}	V_{CB}=60V, I_E=0		0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}=60V, I_B=0		0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=3V, I_C=0		0.1	μA
DC current gain	$H_{FE(1)}$	V_{CE}=1V, I_C= 100mA	100	200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100 mA, I_B=10mA		0.25	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= 100 mA, I_B=10mA		1.2	V
Transition frequency	f_T	V_{CE}= 2 V, I_C= 10mA f = 100MHz	100		MHz

Typical Characteristics

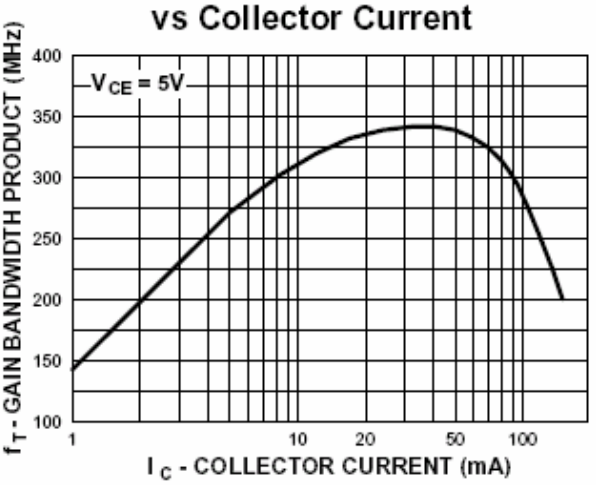
Typical Pulsed Current Gain vs Collector Current



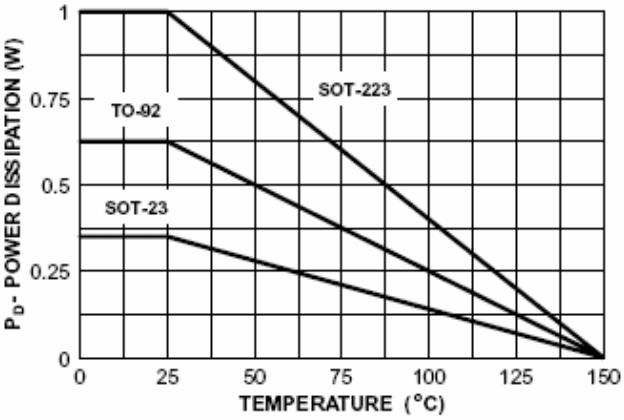
Collector-Emitter Saturation Voltage vs Collector Current



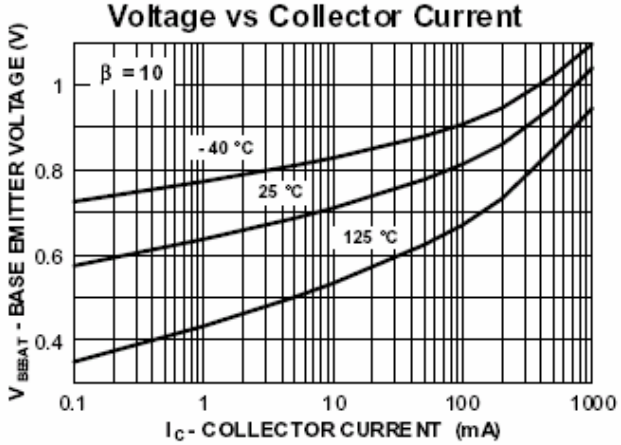
Gain Bandwidth Product vs Collector Current



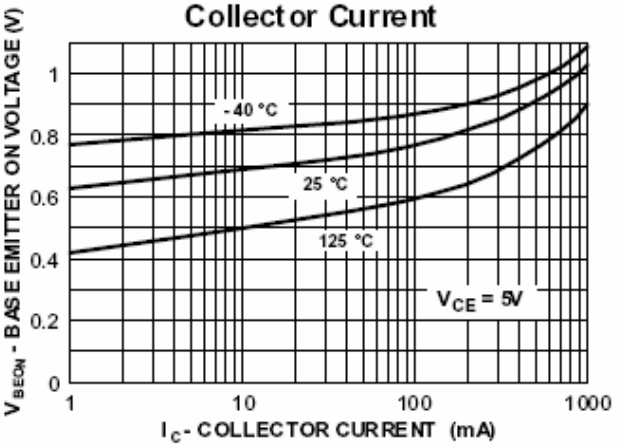
Power Dissipation vs Ambient Temperature



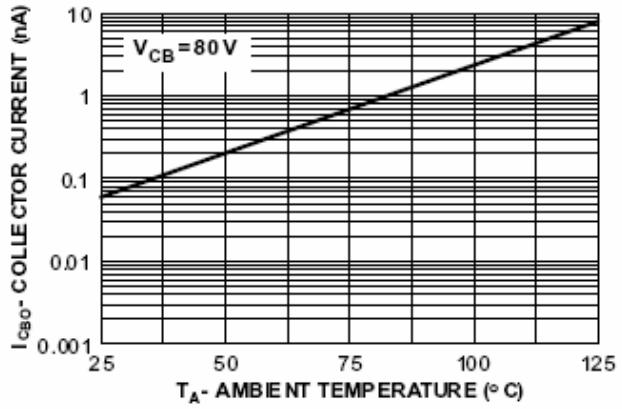
Base-Emitter Saturation Voltage vs Collector Current



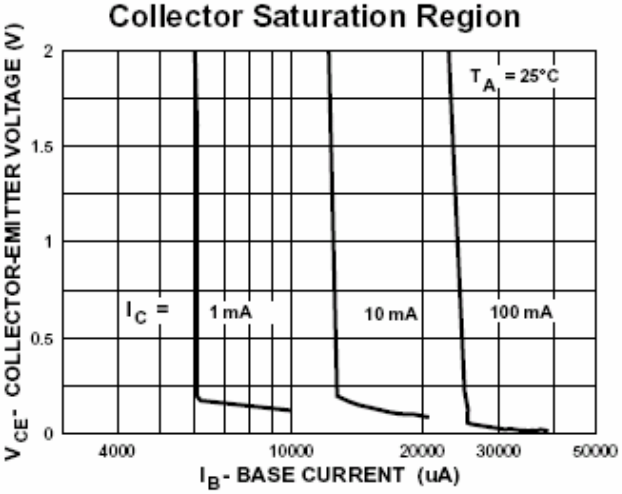
Base Emitter ON Voltage vs Collector Current



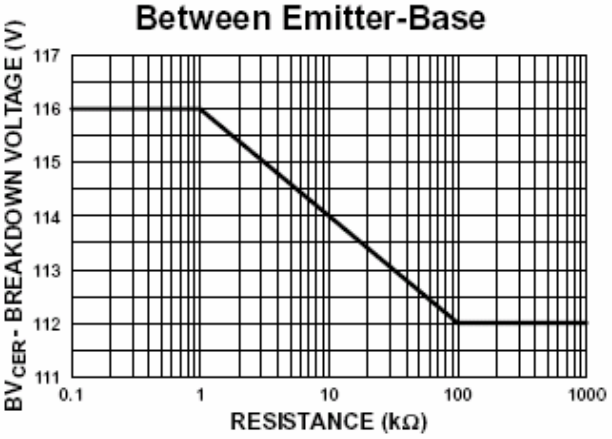
Collector-Cutoff Current vs Ambient Temperature



Collector Saturation Region



Collector-Emitter Breakdown Voltage with Resistance Between Emitter-Base



Input and Output Capacitance vs Reverse Voltage