

isc Silicon PNP Power Transistor

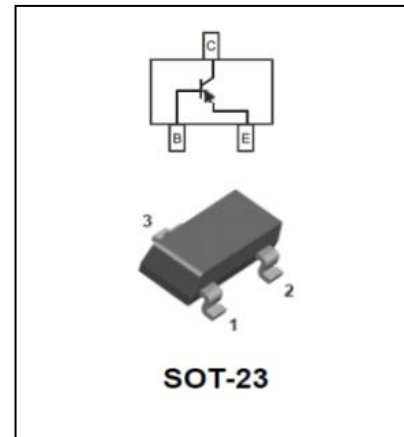
PMBTA92

DESCRIPTION

- Collector-Emitter sustaining Voltage
: $V_{CEO} = -300V(\text{Min})$
- Low current
- SOT-23 plastic package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Telephony and professional communication equipment.

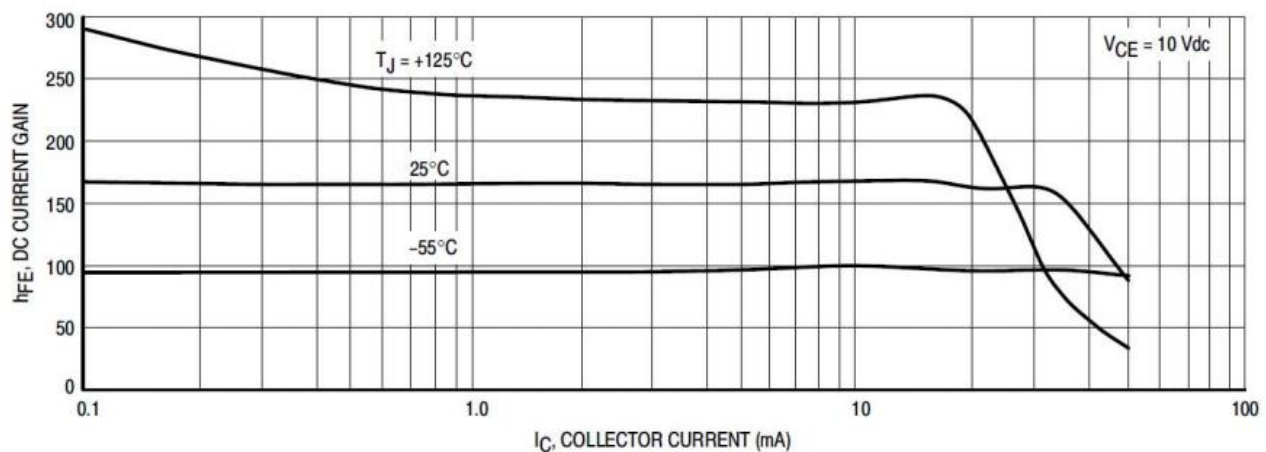


ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-300	V
V_{CEO}	Collector-Emitter Voltage	-300	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-300	mA
P_C	Total Power Dissipation @ $T_C=25^{\circ}\text{C}$	300	mW
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$

isc Silicon PNP Power Transistor**PMBTA92****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -1\text{mA}$; $I_B = 0$	-300			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -20\text{mA}$; $I_B = -2\text{mA}$			-0.2	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -20\text{mA}$; $I_B = -2\text{mA}$			-0.9	V
I_{CBO}	Collector Cutoff Current	$V_{CE} = -200\text{V}$; $I_E = 0$			-0.25	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -6\text{V}$; $I_C = 0$			-0.1	μA
h_{FE-1}	DC Current Gain	$I_C = -1\text{mA}$; $V_{CE} = -10\text{V}$	60			
h_{FE-2}	DC Current Gain	$I_C = -10\text{mA}$; $V_{CE} = -10\text{V}$	100		200	
h_{FE-3}	DC Current Gain	$I_C = -30\text{mA}$; $V_{CE} = -10\text{V}$	60			
f_T	Transisition Frequency	$V_{CE} = -20\text{V}$; $I_C = -10\text{mA}$; $f = 30\text{MHz}$	50			MHz

CHARACTERISTICS

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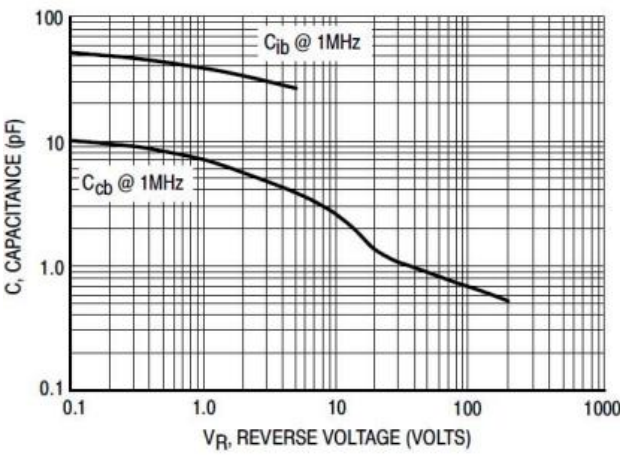


Figure 2. Capacitance

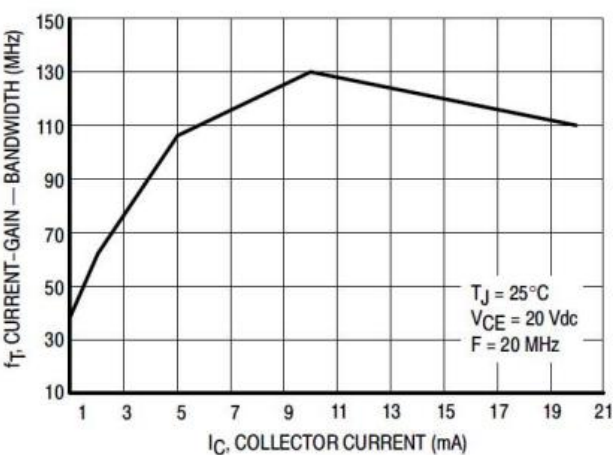
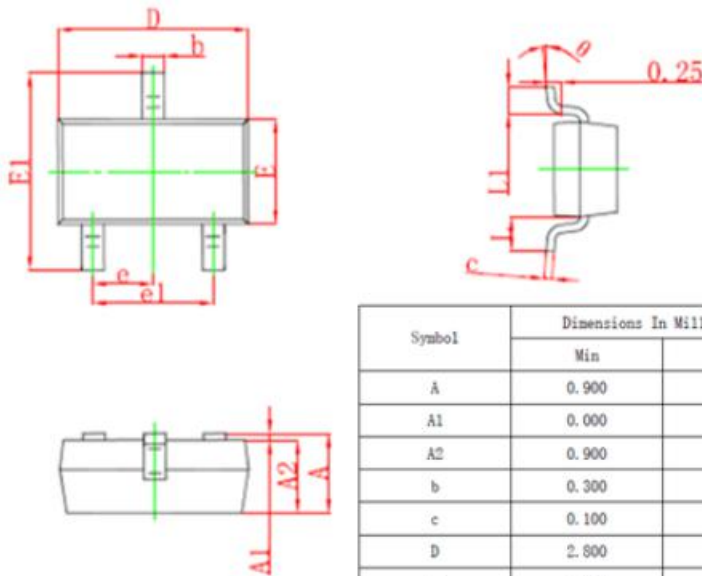


Figure 3. Current-Gain – Bandwidth

OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°