

isc Silicon PNP Power Transistor

2SA1145

DESCRIPTION

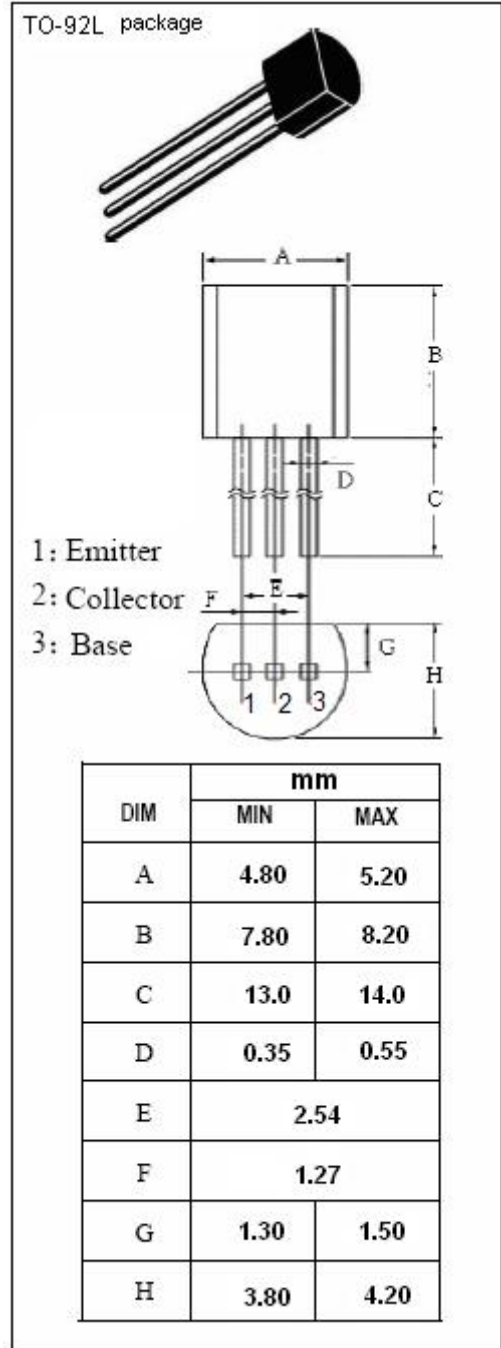
- Low collector output capacitance
- High frequency
- Complement to 2SC2705
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Audio frequency amplifier application

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	-150	V
V _{CEO}	Collector-Emitter Voltage	-150	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current-Continuous	-50	mA
P _C	Total Power Dissipation @ T _C =25°C	0.8	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



isc Silicon PNP Power Transistor**2SA1145****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	$I_C = -1\text{mA}; I_B = 0$	-150			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -10\text{mA}; I_B = -1\text{mA}$			-1	V
$V_{BE(on)}$	Base-Emitter Voltage	$I_C = -10\text{mA}; V_{CE} = -5\text{V}$			-0.8	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -150\text{V}; I_E = 0$			-0.1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-0.1	μA
h_{FE}	DC Current Gain	$I_C = -10\text{mA}; V_{CE} = -5\text{V}$	80		240	
f_T	Current-Gain—Bandwidth Product	$I_C = -10\text{mA}; V_{CE} = -10\text{V}$		200		MHz
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f = 1\text{MHz}$		2.5		pF

◆ **h_{FE} Classifications**

O	Y
80-160	120-240

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2SA1381

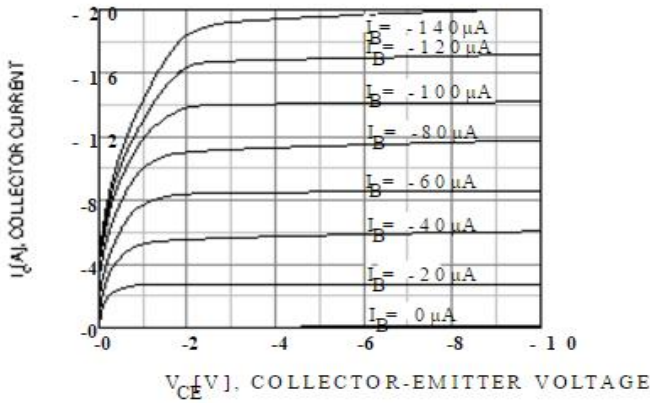


Figure 1. Static Characteristic

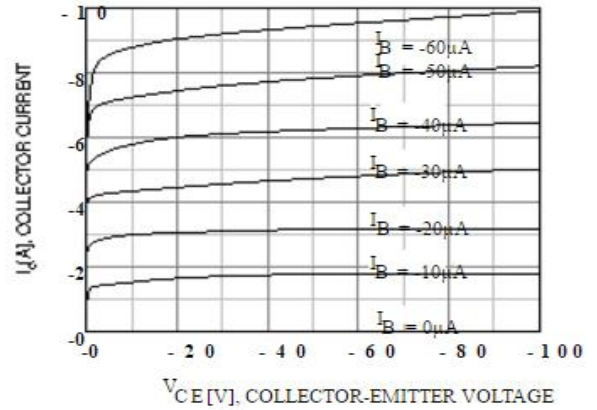


Figure 2. Static Characteristic

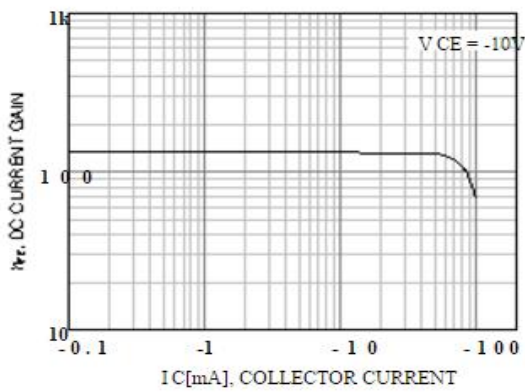


Figure 3. DC current Gain

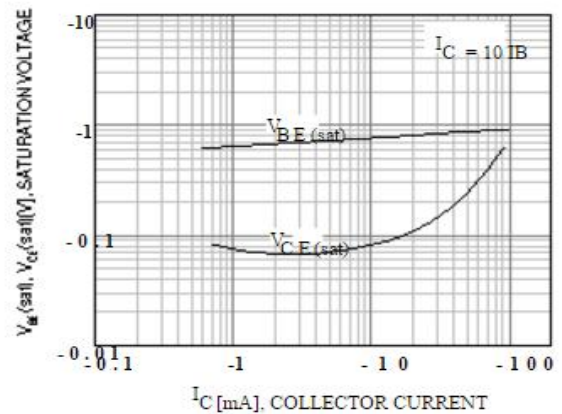


Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

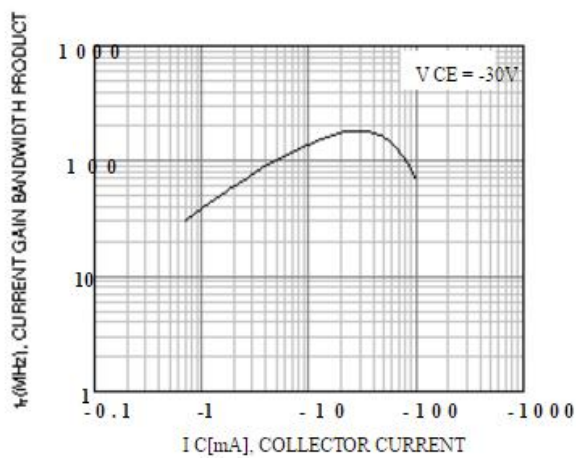


Figure 5. Current Gain Bandwidth Product

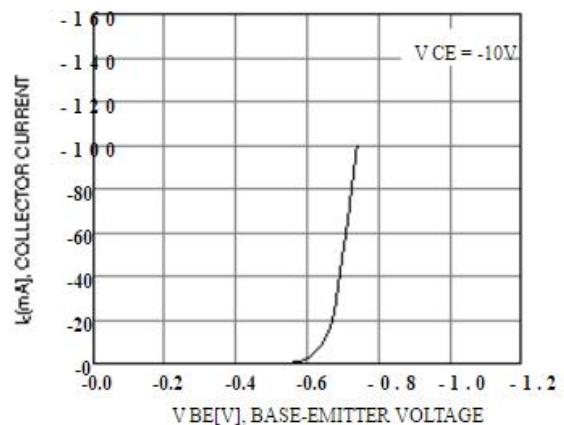


Figure 6. Base-Emitter On Voltage