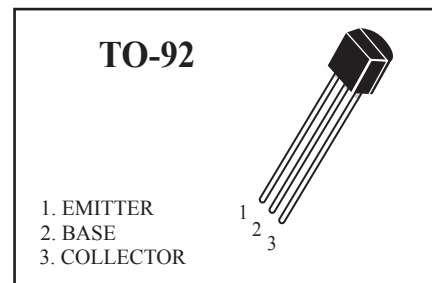


## PNP General Purpose Transistors

**(Pb)** Lead(Pb)-Free



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

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	$V_{CE0}$	-25	Vdc
Collector-Base Voltage	$V_{CB0}$	-40	Vdc
Emitter-Base Voltage	$V_{EB0}$	-5	Vdc
Collector Current	$I_C$	-500	mAdc
Total Device Dissipation $T_A=25^{\circ}\text{C}$	PCM	0.625	W
Junction Temperature	$T_j$	150	$^{\circ}\text{C}$
Storage, Temperature	$T_{stg}$	-55 to +150	$^{\circ}\text{C}$

### ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage ( $I_C = -1.0 \text{ mAdc}$ , $I_E = 0$ )	$V_{(BR)CE0}$	-25	-	Vdc
Collector-Base Breakdown Voltage ( $I_C = -100 \text{ uAdc}$ , $I_E = 0$ )	$V_{(BR)CBO}$	-40	-	Vdc
Emitter-Base Breakdown Voltage ( $I_E = -100 \text{ uAdc}$ , $I_C = 0$ )	$V_{(BR)EBO}$	-5	-	Vdc
Collector Cutoff Current ( $V_{CE} = -20 \text{ Vdc}$ , $I_B = 0$ )	$I_{CE0}$	-	-0.1	$\mu\text{Adc}$
Collector Cutoff Current ( $V_{CB} = -40 \text{ Vdc}$ , $I_E = 0$ )	$I_{CBO}$	-	-0.1	$\mu\text{Adc}$
Emitter Cutoff Current ( $V_{EB} = -5.0 \text{ Vdc}$ , $I_C = 0$ )	$I_{EBO}$	-	-0.1	$\mu\text{Adc}$

**S9012** **WEITRON****Electrical Characteristics** ( $T_A=25^\circ\text{C}$  unless otherwise noted) (Continued)

Characteristics	Symbol	Min	Max	Unit
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**On Characteristics**

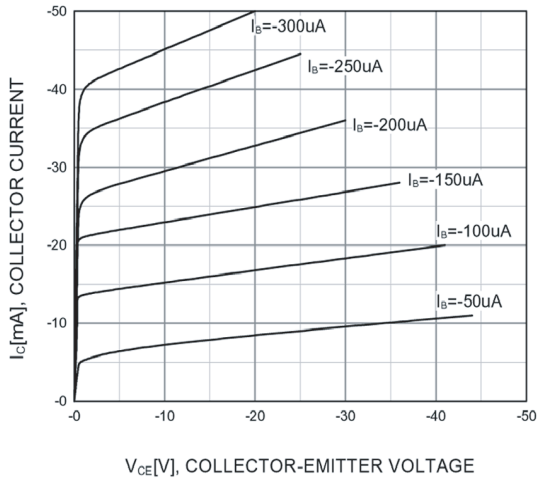
<b>DC Current Gain</b> ( $I_C = -50\text{ mAdc}$ , $V_{CE} = -1\text{Vdc}$ ) ( $I_C = -500\text{ mAdc}$ , $V_{CE} = -1\text{Vdc}$ )	$h_{FE(1)}$ $h_{FE(2)}$	64 40	300 -	-
<b>Collector-Emitter Saturation Voltage</b> ( $I_C = 500\text{ mAdc}$ , $I_B = -50\text{ mAdc}$ )	$V_{CE(sat)}$	-	-0.6	Vdc
<b>Base-Emitter Saturation Voltage</b> ( $I_C = 500\text{ mAdc}$ , $I_B = -50\text{ mAdc}$ )	$V_{BE(sat)}$	-	-1.2	Vdc
<b>Transition frequency</b>	$f_T$	150	-	MHz

**Classification Of  $h_{FE(1)}$** 

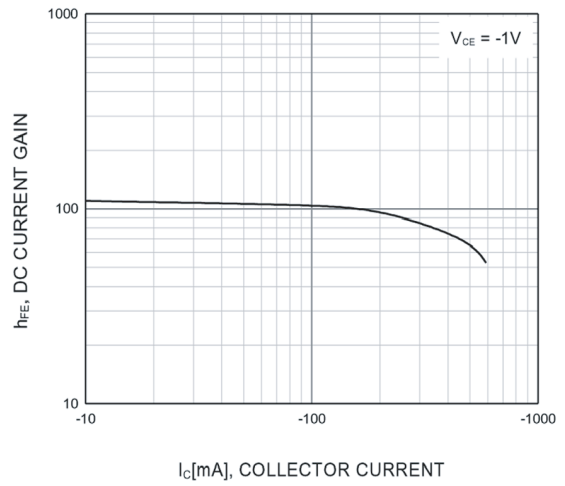
Rank	D	E	F	G	H	I
<b>Range</b>	64-91	78-112	96-135	112-166	144-202	190-300

**WEITRON**<http://www.weitron.com.tw>

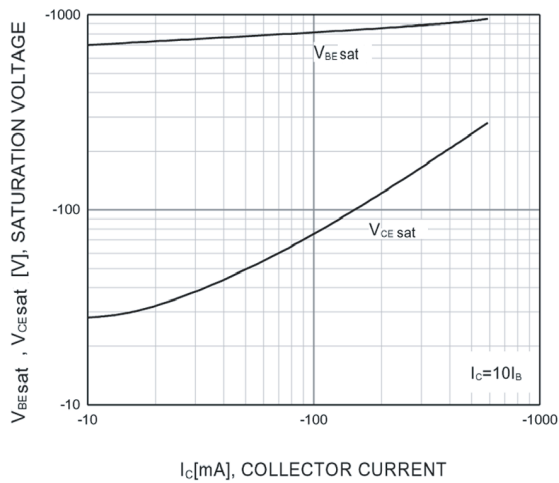
## Typical Characteristics



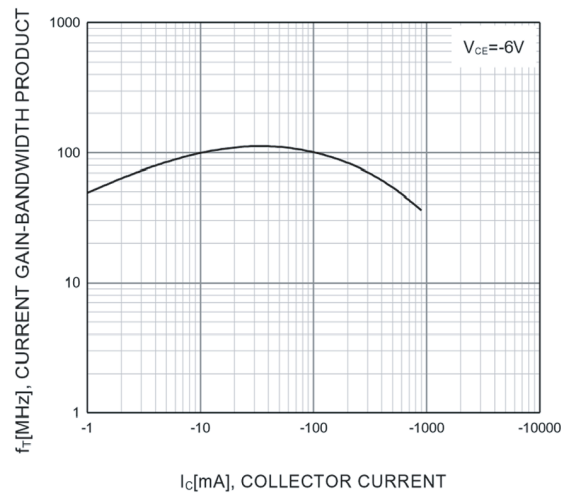
**Static Characteristic**



**DC current Gain**



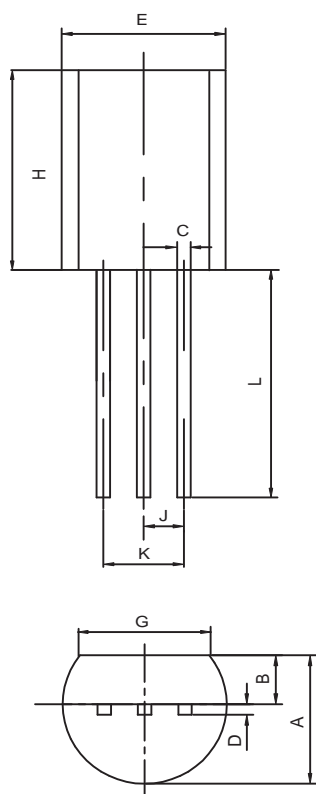
**Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage**



**Current Gain Bandwidth Product**

## TO-92 Outline Dimensions

unit:mm



TO-92		
Dim	Min	Max
A	3.30	3.70
B	1.10	1.40
C	0.38	0.55
D	0.36	0.51
E	4.40	4.70
G	3.43	-
H	4.30	4.70
J	1.270TYP	
K	2.44	2.64
L	14.10	14.50