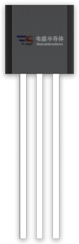
S9015 TRANSISTOR (PNP)



FEATURES

- High Total Power Dissipation.(P_C=0.45W)
- High h_{FE} and Good Linearity
- Complementary to S9014

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
S9015	TO-92	Bulk	1000pcs/Bag
S9015-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.1	A
P_D	Collector Power Dissipation	450	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	277.7	℃ /W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

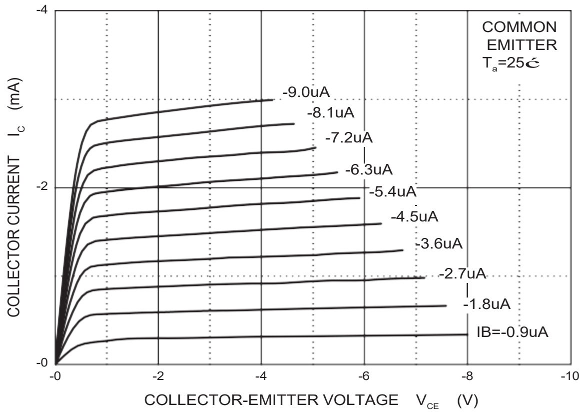
T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -100μA, I_E=0	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= -1mA, I_B=0	-45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-50V, I_E=0			-0.05	μA
Emitter cut-off current	I_{EBO}	V_{EB}= -5V, I_C=0			-0.05	μA
DC current gain	h_{FE}	V_{CE}=-5V, I_C= -1mA	60		1000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA, I_B= -10mA			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-100mA, I_B=-10mA			-1	V
Transition frequency	f_T	V_{CE}=-5V, I_C= -10mA f=30MHz	100			MHz

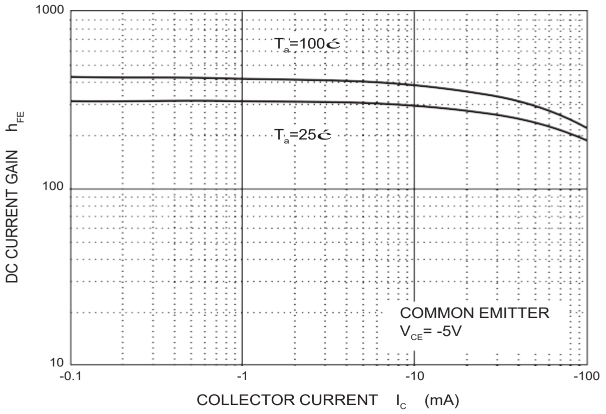
CLASSIFICATION OF $h_{FE(1)}$

Rank	A	B	C	D
Range	60-150	100-300	200-600	400-1000

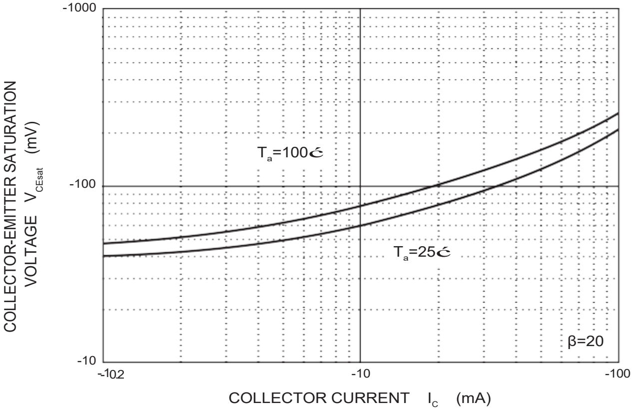
Static Characteristic



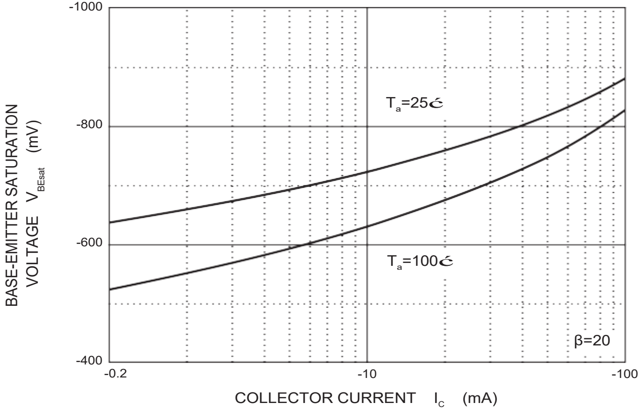
h_{FE} — I_C



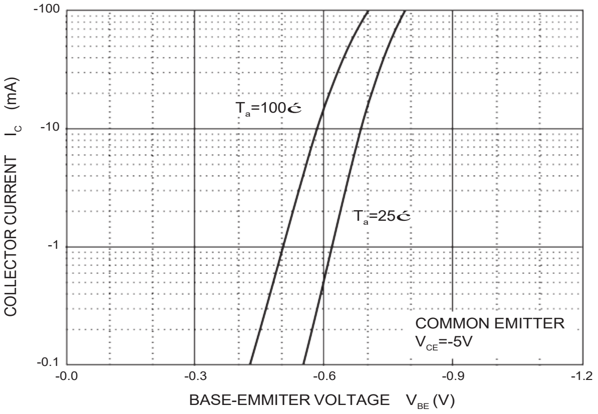
V_{CEsat} — I_C



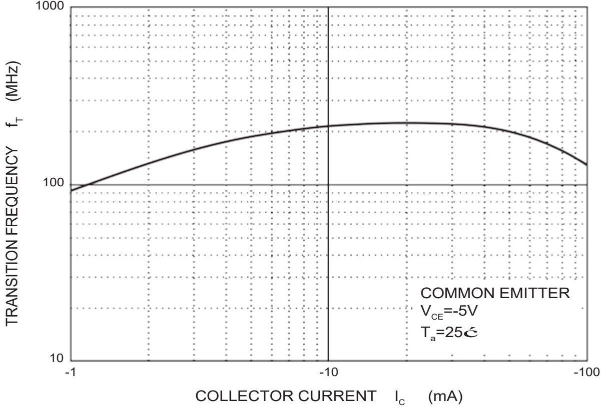
V_{BEsat} — I_C



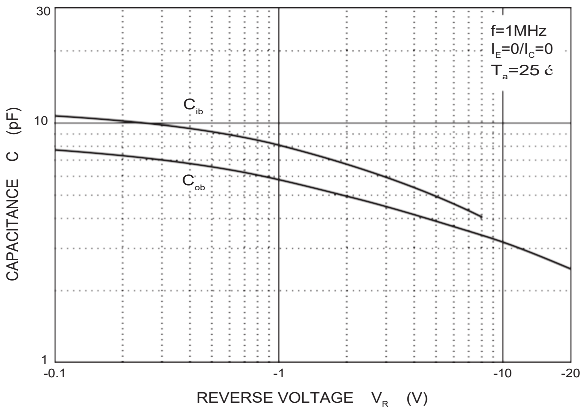
I_C — V_{BE}



f_T — I_C



C_{ob}/ C_{ib} — V_{CB}/ V_{EB}



P_C — T_a