



TO-92 Plastic-Encapsulate Transistors

S9012 TRANSISTOR (PNP)

FEATURE

Power dissipation

P_{CM} : 0.625 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : -0.5 A

Collector-base voltage

$V_{(BR)CBO}$: -40 V

Operating and storage junction temperature range

T_j, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$

TO-92

1. EMITTER

2. BASE

3. COLLECTOR



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1 mA, I_B = 0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -40V, I_E = 0$			-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CB} = -20V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -4V, I_C = -1mA$	64		400	
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -500mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500 mA, I_B = -50mA$			-0.6	V
Base-emitter voltage	$V_{BE(sat)}$	$I_C = -500 mA, I_B = -50mA$			-1.2	V
Transition frequency	f_T	$V_{CE} = -6V, I_C = -20mA, f = 30MHz$	150			MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	D	E	F	G	H	I	J
Range	64-91	78-112	96-135	112-166	144-202	190-300	300-400