

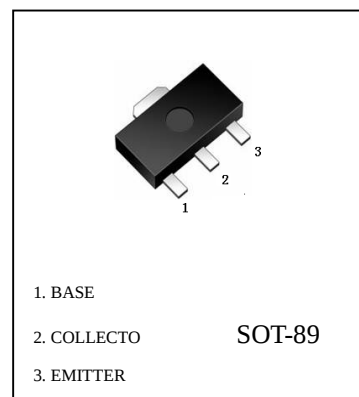
FEATURES

Excellent current-to-gain characteristics
Low collector saturation voltage $V_{CE(sat)}$
 $V_{CE(sat)}=0.5V(max)$ for $I_C/I_B=2A/0.1A$

2SD2150(NPN)

MAXIMUM RATINGS (TA=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current -Continuous	I_C	2000	mA
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-55-150	℃



ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C=50\mu A, I_E=0$	40			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C=1mA, I_B=0$	20			V
Emitter-base breakdown voltage	V_{EBO}	$I_E=50\mu A, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=30V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	h_{FE}^*	$V_{CE}=2V, I_C=100mA$	180		560	
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=2A, I_B=100mA$			0.5	V
Transition frequency	f_T^*	$V_{CE}=2V, I_C=500mA$ $f=100MHz$		290		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		25		pF

*Pulse test: $t_p \leq 300\mu S, \delta \leq 0.02$.

CLASSIFICATION OF HFE

Marking	CFR	CFS		
Range	180-390	270-560		

2SD2150 Typical Characteristics

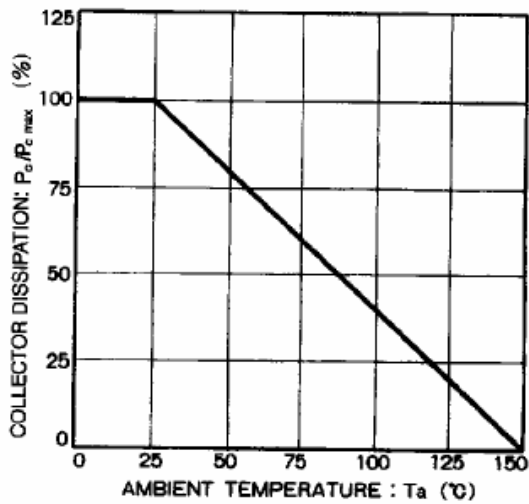


Figure 1

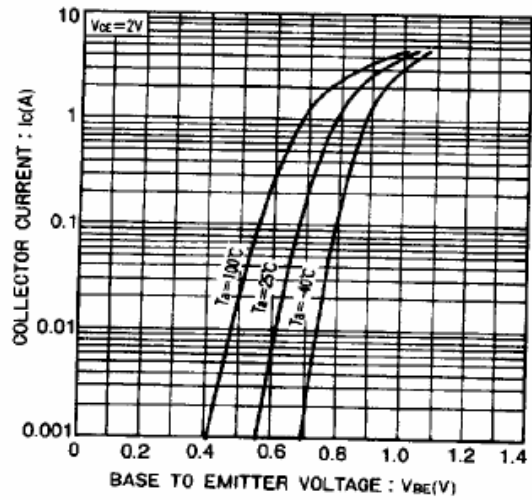


Figure 2

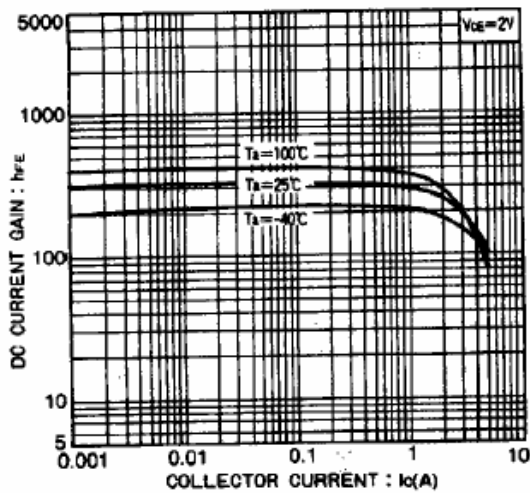


Figure 3

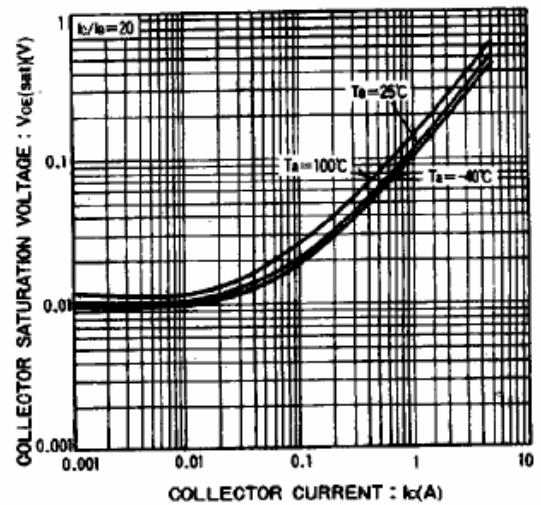


Figure 4