



SOT-89-3L Plastic-Encapsulate Transistors

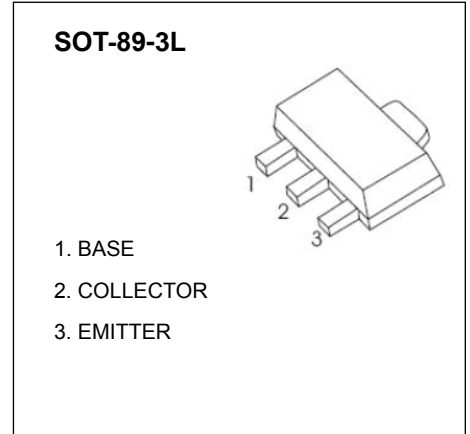
2SD2150 TRANSISTOR (NPN)

FEATURES

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

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	40	V
V _{CEO}	Collector-Emitter Voltage	20	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	3	A
P _C	Collector Power Dissipation	500	mW
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =50uA, I _E =0	40			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	20			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =50μA, 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≤300μS, δ≤0.02.

CLASSIFICATION OF h_{FE}

Rank	R	S
Range	180-390	270-560
Marking	CFR	CFS

Typical Characteristics

2SD2150

