Plastic-Encapsulate Transistors
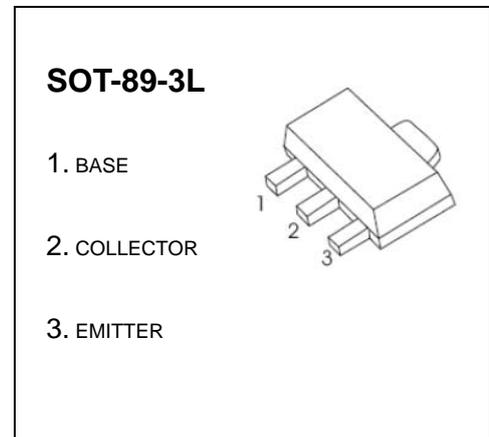
TRANSISTOR (PNP)

FEATURES

- Large collector power dissipation P_C
- Complementary to 2SD874

SOT-89-3L

1. BASE

2. COLLECTOR

3. EMITTER

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1	A
P_C	Collector Power Dissipation	500	mW
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C =-10μA, I_E=0	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C =-2mA, I_B=0	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-20V, I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V, I_C=0			-0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-10V, I_C=-500mA	85		340	
	$h_{FE(2)}$	V_{CE}=-5V, I_C=-1A	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA, I_B=-50mA		-0.2	-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-500mA, I_B=-50mA		-0.85	-1.2	V
Transition frequency	f_T	V_{CE}=-10V, I_C=-50mA, f=200MHz		200		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz		20	30	pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	Q	R	S
Range	85-170	120-240	170-340
Marking	AQ	AR	AS