

NPN Transistors

—NPN Silicon—

■ ■ APPLICATION: Low-Frequency Power amplifier Applications.

■ ■ MAXIMUM RATINGS (Ta=25°C)

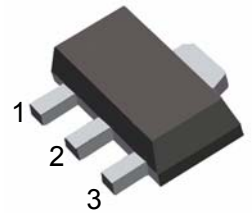
PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V _{CB0}	60	V
Collector-emitter voltage	V _{CEO}	50	V
Emitter-base voltage	V _{EBO}	5	V
Collector current	I _c	1	A
Collector Power Dissipation	P _c	1	W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55~150	°C

SOT-89

1. BASE

2. COLLECTOR

3. EMITTER


■ ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Collector-Base Breakdown Voltage	BV _{cb0}	60			V	I _c =10uA I _e =0
Collector-Emitter Breakdown Voltage	BV _{ceo}	50			V	I _c =2mA I _b =0
Emitter-Base Breakdown Voltage	BV _{ebo}	5			V	I _e =10uA I _c =0
Collector Cut-off Current	I _{cbo}			0.1	uA	V _{cb} =20V I _e =0
Collector-Emitter Saturation Voltage	V _{ce(sat)}		0.2	0.4	V	I _c =0.5A I _b =50mA
Base-Emitter Saturation Voltage	V _{be(sat)}		0.85	1.2	V	I _c =0.5A I _b =50mA
DC Current Gain	h _{FE}	85	160	340	β	V _{ce} =10V I _c =0.5A
Gain bandwidth product	f _T		200		MHz	V _{ce} =10V I _e =-50mA f=100MHz
Common Base Output Capacitance	C _{ob}			20	pF	V _{cb} =10 V I _e =0 f=1MHz

■ ■ h_{FE} Classification And Marking

Print Mark	YQ	YR	YS
Classification	Q	R	S
h _{FE}	85~170	120~240	170~340