

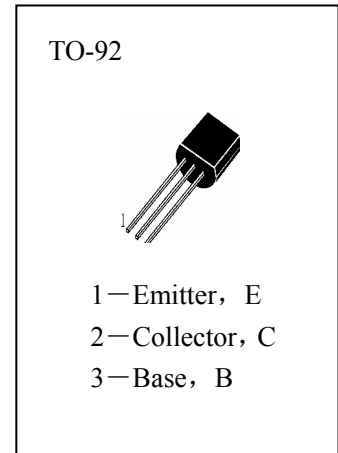


■ POWER AMPLIFIER APPLICATIONS

POWER SWITCHING APPLICATIONS

■ ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

- T_{stg} —Storage Temperature..... -55~150°C
- T_j —Junction Temperature..... 150°C
- P_C —Collector Dissipation.....900mW
- V_{CBO} —Collector-Base Voltage.....-50V
- V_{CEO} —Collector-Emitter Voltage.....-50V
- V_{EBO} —Emitter-Base Voltage.....-5V
- I_C —Collector Current.....-2mA



■ ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV _{CBO}	Collector-Base Breakdown Voltage	-50			V	$I_C=-1\text{mA}, I_E=0$
BV _{CEO}	Collector-Emitter Breakdown Voltage	-50			V	$I_C=-10\text{mA}, I_B=0$
BV _{EBO}	Emitter-Base Breakdown Voltage	-5			V	$I_E=-1\text{mA}, I_C=0$
I _{CBO}	Collector Cut-off Current			-100	nA	$V_{CB}=-50\text{V}, I_E=0$
I _{EBO}	Emitter Cut-off Current			-100	nA	$V_{EB}=-5\text{V}, I_C=0$
HFE(1)	DC Current Gain	70		240		$V_{CE}=-2\text{V}, I_C=-0.5\text{A}$
HFE(2)		40				$V_{CE}=-2\text{V}, I_C=-1.5\text{A}$
V _{CE(sat)}	Collector- Emitter Saturation Voltage			-0.5	V	$I_C=-1\text{A}, I_B=-0.05\text{A}$
V _{BE(sat)}	Base-Emitter Saturation Voltage			-1.2	V	$I_C=-1\text{A}, I_B=-0.05\text{A}$
f _T	Current Gain-Bandwidth Product		100		MHz	$V_{CE}=-2\text{V}, I_C=-0.5\text{A}$
C _{ob}	Output Capacitance		40		pF	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$
t _{ON}	Turn-on Time		0.1		μs	<p>20 μs INPUT I_{B2} OUTPUT I_{B1} I_{B2} I_{B1} -I_{B1}=I_{B2}=0.05A, V_{CC}= DUTY CYCLE ≤ 1% -30V</p>
t _{STG}	Storage Time		1.0		μs	
t _F	Fall Time		0.1		μs	

■ h_{FE} Classification

	O	Y
	70—140	120—240

