

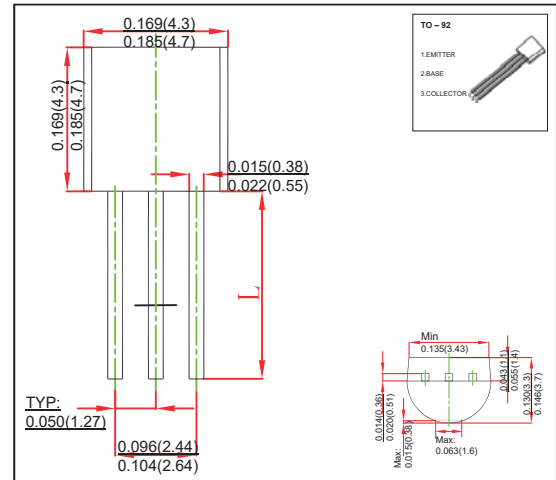
TO-92 Plastic-Encapsulate Transistors

FEATURES

- Switching and amplification in high voltage
- Applications such as telephony
- Low current
- High voltage
- NPN Transistors

MECHANICAL DATA

- Case style: TO-92 molded plastic
- Mounting position: any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-600	mA
Collector Power dissipation	P_C	0.625	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C
Thermal Resistance, junction to Ambient	$R_{\theta JA}$	200	°C/W

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$		-40			
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -35V, I_E = 0$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-100	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -0.1mA$	30			
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -1mA$	60			
	$h_{FE(3)}$	$V_{CE} = -1V, I_C = -10mA$	100			
	$h_{FE(4)}$	$V_{CE} = -1V, I_C = -150mA$	100		300	
	$h_{FE(5)}$	$V_{CE} = -2V, I_C = -500mA$	20			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = -150mA, I_B = -15mA$			-0.4	V
	$V_{CE(sat)2}$	$I_C = -500mA, I_B = -50mA$			-0.75	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C = -150mA, I_B = -15mA$	-0.75		-0.95	V
	$V_{BE(sat)2}$	$I_C = -500mA, I_B = -50mA$			-1.3	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -20mA, f = 100MHz$	200			MHz
Collector capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 100KHz$			8.5	pF
Delay time	t_d				15	nS
Rise time	t_r	$V_{CC} = -30V, I_C = -150mA$			20	nS
Storage time	t_s	$I_{B1} = - I_{B2} = -15mA$			225	nS
Fall time	t_f				30	nS

RRATINGS AND CHARACTERISTIC CURVES

