

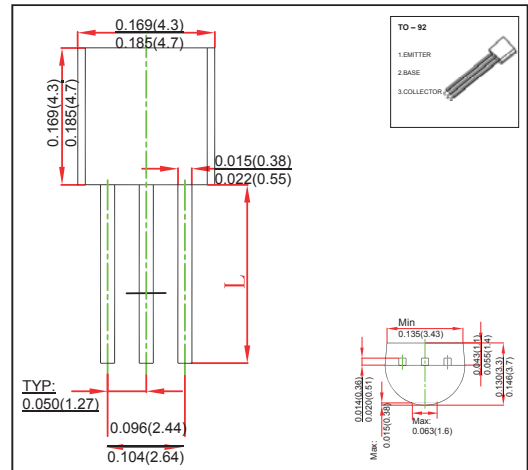
TO-92 Plastic-Encapsulate Transistors

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}	60	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	6	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	$R_{\theta JA}$	357	°C/mW

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{ mA}, I_B=0$	40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	6		V
Collector cut-off current	I_{CBO}	$V_{CB}=35V, I_E=0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$		0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=1V, I_C=0.1\text{ mA}$	20		
	$h_{FE(2)}$	$V_{CE}=1V, I_C=1\text{ mA}$	40		
	$h_{FE(3)}$	$V_{CE}=1V, I_C=10\text{ mA}$	80		
	$h_{FE(4)}$	$V_{CE}=1V, I_C=150\text{ mA}$	100	300	
	$h_{FE(5)}$	$V_{CE}=2V, I_C=500\text{ mA}$	40		
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C=150\text{ mA}, I_B=15\text{ mA}$		0.4	V
	$V_{CE(sat)2}$	$I_C=500\text{ mA}, I_B=50\text{ mA}$		0.75	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C=150\text{ mA}, I_B=15\text{ mA}$		0.95	V
	$V_{BE(sat)2}$	$I_C=500\text{ mA}, I_B=50\text{ mA}$		1.2	V
Transition frequency	f_T	$V_{CE}=10V, I_C=20\text{ mA}, f=100\text{ MHz}$	250		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=100\text{ KHz}$		6.5	pF
Delay time	t_d	$V_{CC}=30V, V_{BE(OFF)}=2V, I_C=150\text{ mA}, I_{B1}=15\text{ mA}$		15	ns
Rise time	t_r			20	ns
Storage time	t_s	$V_{CC}=30V, I_C=150\text{ mA}, I_{B1}=-I_{B2}=15\text{ mA}$		225	ns
Fall time	t_f			30	ns

RATINGS AND CHARACTERISTIC CURVES

