

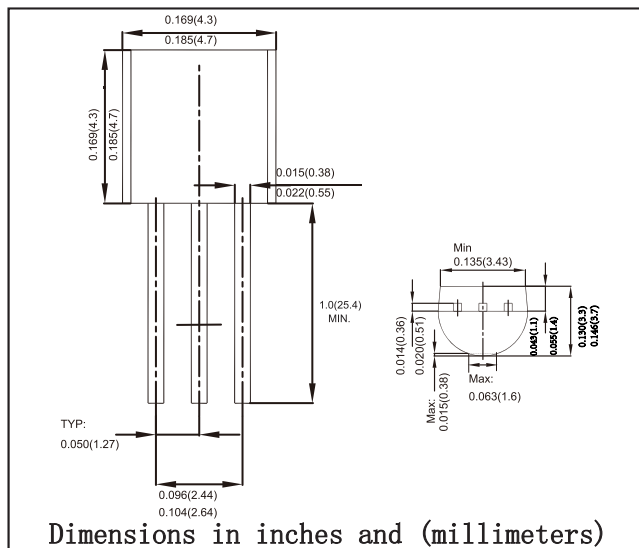
TO-92 Plastic-Encapsulate Transistors

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	$h_{FE(1)}$	$V_{CE}=1V$, $I_C=0.1mA$	20		
	$h_{FE(2)}$	$V_{CE}=1V$, $I_C=1mA$	40		
	$h_{FE(3)}$	$V_{CE}=1V$, $I_C=10mA$	80		
	$h_{FE(4)}$	$V_{CE}=1V$, $I_C=150mA$	100	300	
	$h_{FE(5)}$	$V_{CE}=2V$, $I_C=500mA$	40		
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C=150\text{ mA}$, $I_B=15mA$		0.4	V
	$V_{CE(sat)2}$	$I_C=500\text{ mA}$, $I_B=50mA$		0.75	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C=150\text{ mA}$, $I_B=15mA$		0.95	V
	$V_{BE(sat)2}$	$I_C=500\text{ mA}$, $I_B=50mA$		1.2	V
Transition frequency	f_T	$V_{CE}=10V$, $I_C=20mA$, $f=100MHz$	250		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V$, $I_E=0$, $f=100KHz$		6.5	pF
Delay time	t_d	$V_{CC}=30V$, $V_{BE(OFF)}=2V$ $I_C=150mA$, $I_{B1}=15mA$		15	ns
Rise time	t_r			20	ns
Storage time	t_s	$V_{CC}=30V$, $I_C=150mA$		225	ns
Fall time	t_f	$I_{B1}=-I_{B2}=15mA$		30	ns

RATINGS AND CHARACTERISTIC CURVES

