

TO-92 Plastic-Encapsulate Transistors

FEATURES

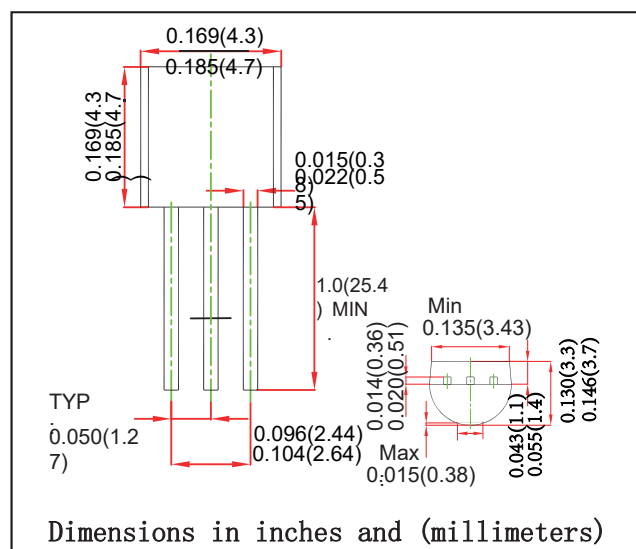
- Switching and Amplification in High Voltage
- Applications such as Telephony
- Low Current(Max. 600mA)
- High Voltage(Max.160V)
- TRANSISTOR (NPN)

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}	160	V
Collector-Emitter Voltage	V_{CEO}	140	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current -Continuous	I_C	0.6	A
Collector Power Dissipation	P_C	0.625	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55-150	°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	160			V
Collector-emitter voltage breakdown	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	140			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=100V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			0.05	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=5V, I_C=1mA$	60			
	$h_{FE(2)}$	$V_{CE}=5V, I_C=10mA$	60		250	
	$h_{FE(3)}$	$V_{CE}=5V, I_C=50mA$	20			
Collector-emitter saturation voltage	V_{CEsat}	$I_C=10mA, I_B=1mA$ $I_C=50mA, I_B=5mA$			0.15 0.25	V
Base-emitter saturation voltage	V_{BEsat}	$I_C=10mA, I_B=1mA$ $I_C=50mA, I_B=5mA$			1 1.2	V
Transition frequency	f_T	$V_{CE}=10V, I_C=10mA, f=100MHz$	100		300	MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$			6	pF
Noise figure	NF	$V_{CE}=5V, I_C=0.25mA$ $f=1KHz, R_s=1k\Omega$			10	dB

RATINGS AND CHARACTERISTIC CURVES

