



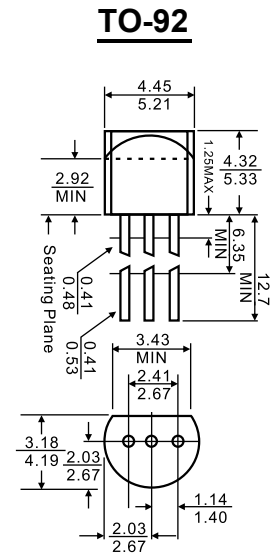
1. EMITTER
2. BASE
3. COLLECTOR

## Features

- ◇ Power dissipation

### MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-40	V
$V_{CEO}$	Collector-Emitter Voltage	-40	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-600	mA
$P_C$	Collector Power dissipation	0.625	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55 to +150	$^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, junction to Ambient	357	$^\circ\text{C}/\text{mW}$



Dimensions in inches and (millimeters)

### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless otherwise specified)

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

## Typical Characteristics

