



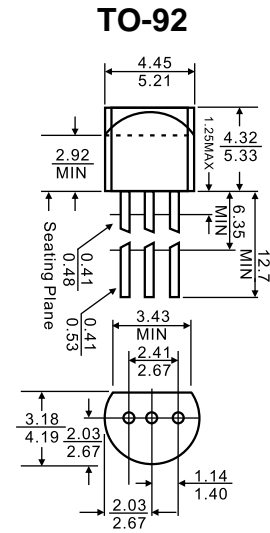
1. EMITTER
2. COLLECTOR
3. BASE

### Features

- ✧ High DC current gain and excellent  $h_{FE}$  linearity
- ✧ Low saturation voltage

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	30	V
$V_{CEO}$	Collector-Emitter Voltage	10	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current –Continuous	2	A
$P_C$	Collector Power Dissipation	750	mW
$T_J$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-55-150	$^{\circ}\text{C}$



Dimensions in inches and (millimeters)

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

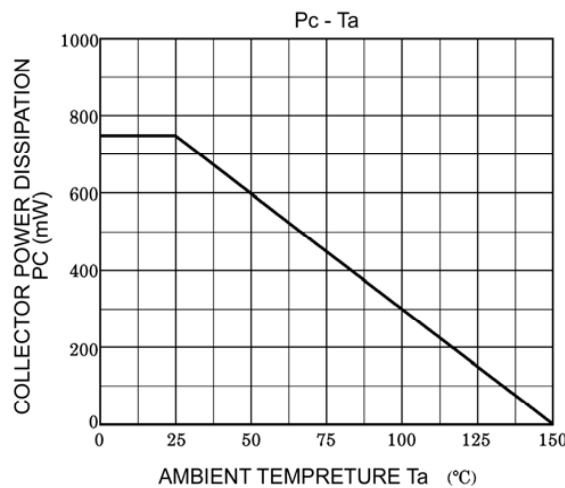
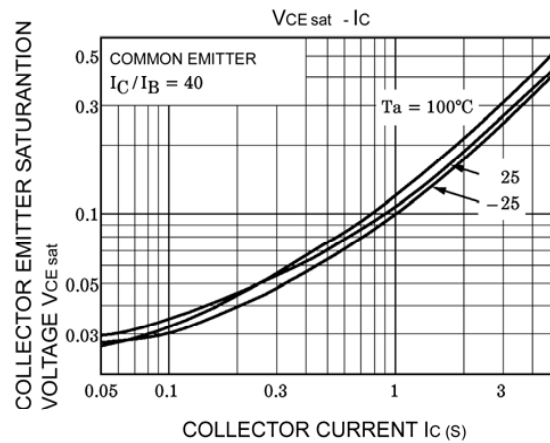
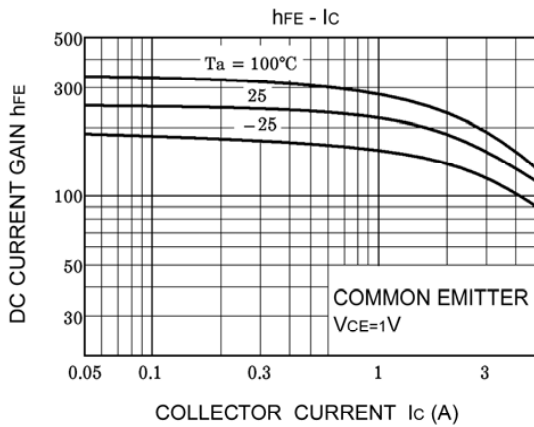
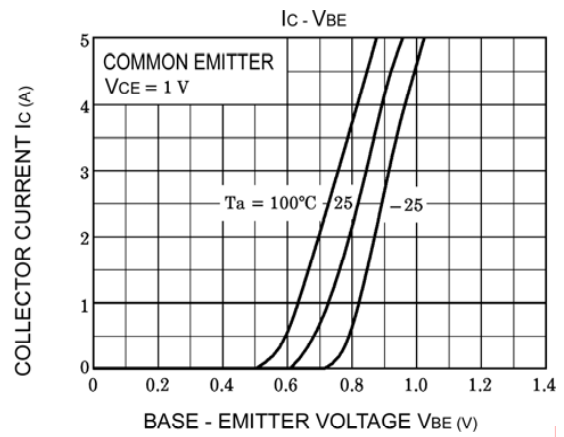
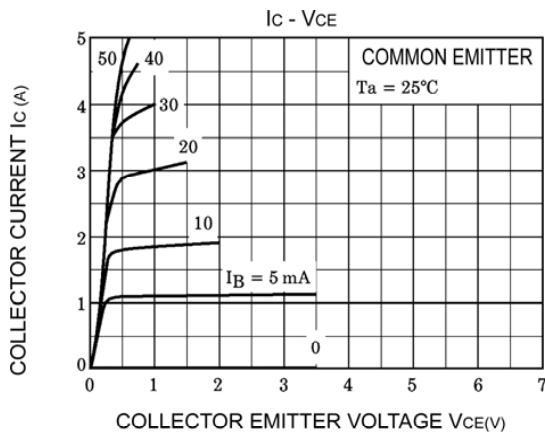
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}, I_E=0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	10			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=30\text{V}, I_E=0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=6\text{V}, I_C=0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE}=1\text{V}, I_C=0.5\text{A}$	140		600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2\text{A}, I_B=100\text{mA}$			0.82	V
Base-emitter voltage	$V_{BE}$	$I_C=2\text{A}, V_{CE}=1\text{V}$			1.5	V
Transition frequency	$f_T$	$V_{CE}=1\text{V}, I_C=0.5\text{A}$		150		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		27		pF

### CLASSIFICATION OF $h_{FE}$

Rank	L	M	N	P
Range	140-240	200-330	300-450	420-600



### Typical Characteristics



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	2000pcs	333×162×43	20,000pcs	350×340×250