



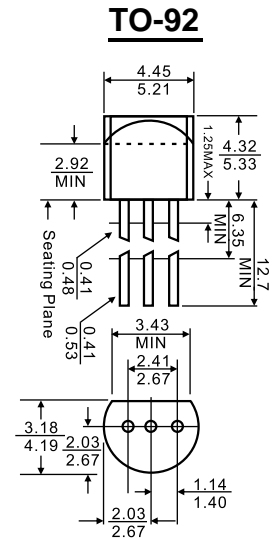
1. EMITTER
2. BASE
3. COLLECTOR

### Features

- ✧ High  $V_{(BR)EBO}$  : 12V

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

Symbol	Parameter	Value	Units
$V_{CEO}$	Collector-Ease Voltage	40	V
$V_{EBO}$	Emitter-Base Voltage	12	V
$I_C$	Collector Current -Continuous	0.1	A
$P_C$	Collector Power Dissipation	300	mW
$T_j$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-55 to +150	$^{\circ}\text{C}$



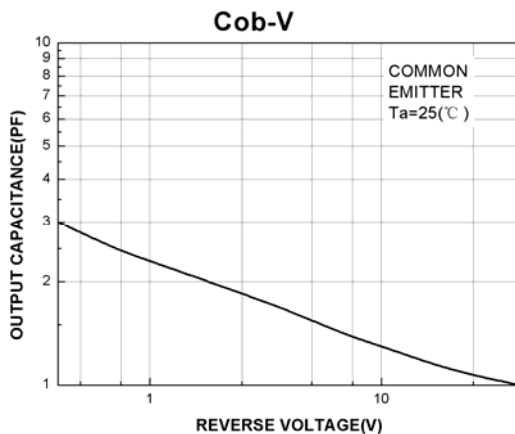
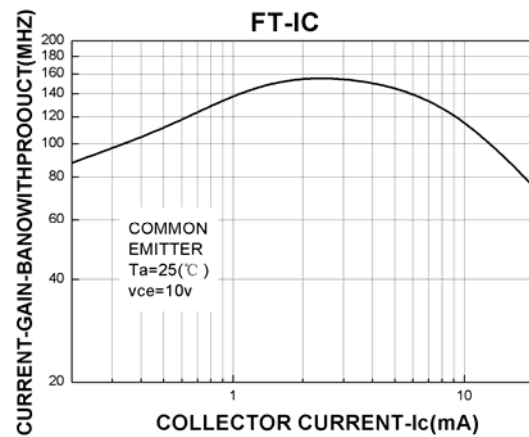
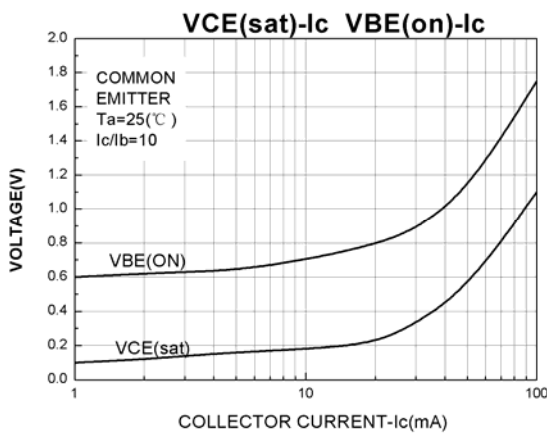
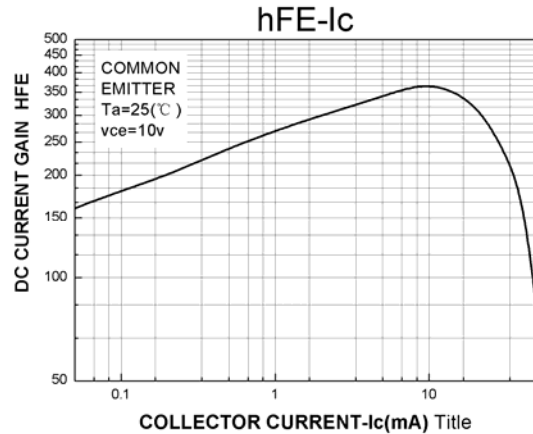
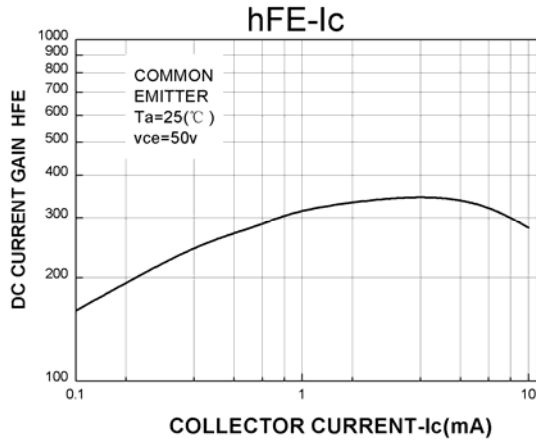
Dimensions in inches and (millimeters)

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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_E=0$	40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	12		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=30\text{V}, I_E=0$		0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=10\text{V}, I_C=0$		0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE}=10\text{V}, I_C=5\text{mA}$	200	800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10\text{mA}, I_B=1\text{mA}$		0.25	V
Transition frequency	$f_T$	$V_{CE}=10\text{V}, I_C=5\text{mA}, f=100\text{MHz}$	80		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		4	pF



## Typical Characteristics



Package	Packing	Quantity	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	Bulk	1000pcs/BP	10,000pcs	245×170×100	100,000pcs	525×375×270
TO-92	Tape	2000pcs/TP	2000pcs	333×162×43	20,000pcs	350×340×250