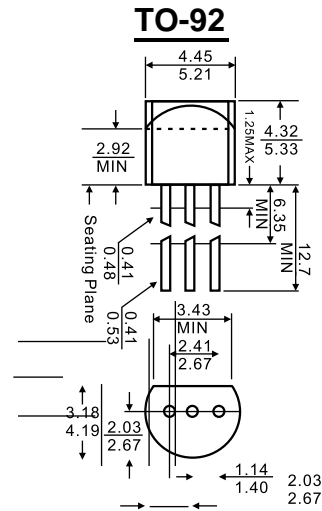




1. EMITTER
2. COLLECTOR
3. BASE

Features

- ◇ High h_{FE} and low $V_{CE(sat)}$
- $h_{FE}(I_C=100mA) : 200(Typ)$
- $V_{CE(sat)}(700mA) : 0.2V (Typ)$



Dimensions in inches and (millimeters)

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	700	mA
P_C	Collector Power Dissipation	600	mW
T_j	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-55-150	$^{\circ}C$

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

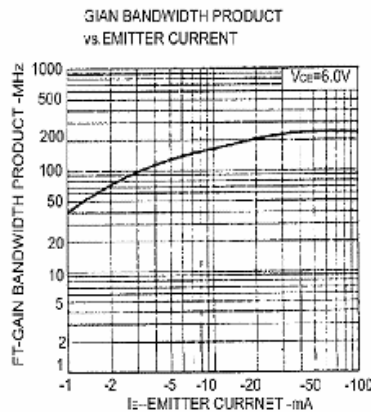
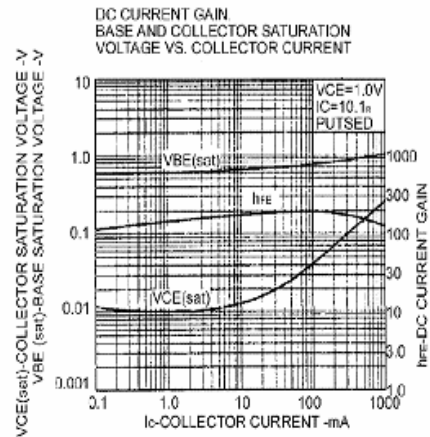
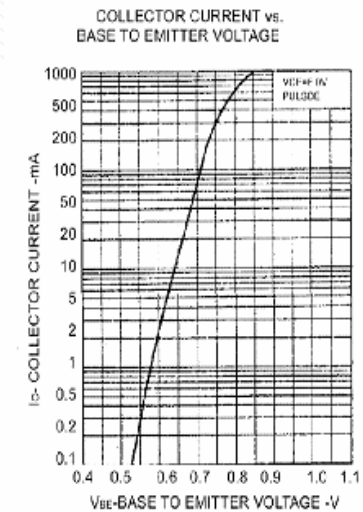
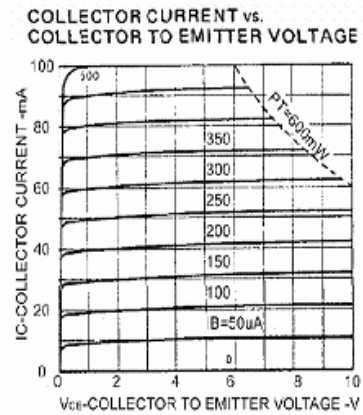
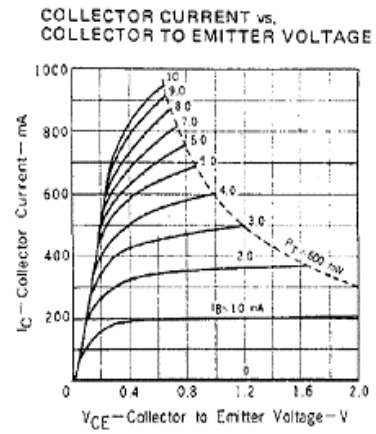
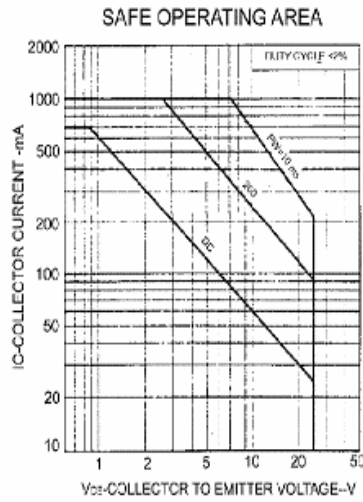
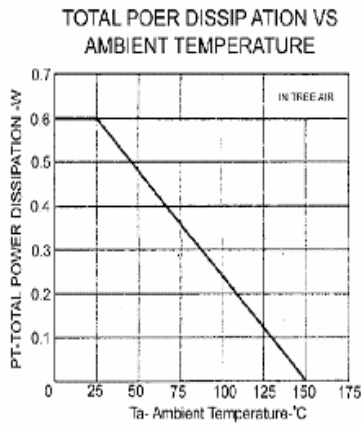
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	30		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB}=30V, I_E=0$		0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=20V, I_B=0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$		0.1	μA
DC current gain	h_{FE}	$V_{CE}=1V, I_C=100mA$	90	400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=700mA, I_B=70mA$		0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=700mA, I_B=70mA$		1.2	V
Transition frequency	f_T	$V_{CE}=6V, I_C=10mA$ $f=30MHz$	50		MHz

CLASSIFICATION OF h_{FE}

Rank	M	L	K
Range	90-180	135-270	200-400



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