

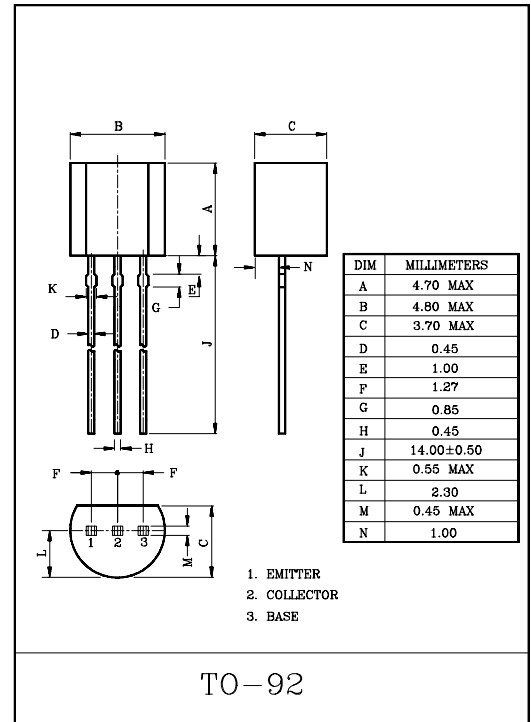
GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

- Excellent h_{FE} Linearity
: $h_{FE}(2)=100(\text{Typ.})$ at $V_{CE}=6V$, $I_C=150mA$
: $h_{FE}(I_C=0.1mA)/h_{FE}(I_C=2mA)=0.95(\text{Typ.})$.
- Low Noise : $NF=2dB(\text{Typ.})$ at $f=1kHz$.

MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	50	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=50V$, $I_E=0$	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V$, $I_C=0$	-	-	0.1	μA
DC Current Gain	$h_{FE}(1)$ (Note)	$V_{CE}=6V$, $I_C=2mA$	70	-	700	
	$h_{FE}(2)$	$V_{CE}=6V$, $I_C=150mA$	25	100	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$, $I_B=10mA$	-	0.08	0.2	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA$, $I_B=10mA$	-	-	1.0	V
Transition Frequency	f_T	$V_{CE}=10V$, $I_E=-10mA$	-	250	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$, $I_E=0$, $f=1MHz$	-	2.0	3.0	pF
Base Intrinsic Resistance	$r_{bb'}$	$V_{CB}=10V$, $I_C=1mA$, $f=30MHz$	-	50	-	Ω
Noise Figure	NF	$V_{CE}=6V$, $I_C=0.1mA$, $R_g=10k\Omega$, $f=1kHz$	-	2.0	10	dB

Note) h_{FE} Classification O : 70~140, Y : 120~240, GR : 200~400, BL : 350~700