

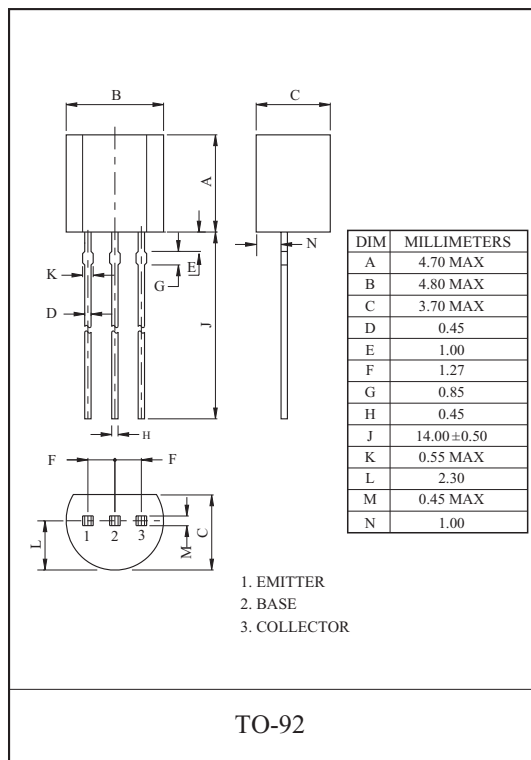
VOLTAGE REGULATOR, RELAY,
LAMP DRIVER, INDUSTRIAL USE

FEATURES

- High Voltage : $V_{CEO} = -60V(\text{Min.})$.
- High Current : $I_C(\text{Max.}) = -1A$.
- High Transition Frequency : $f_T = 150\text{MHz}(\text{Typ.})$.
- Wide Area of Safe Operation.
- Complementary to MPS651.

MAXIMUM RATING ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	DC	I_C	A
	Pulse	I_{CP}	
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ\text{C}$

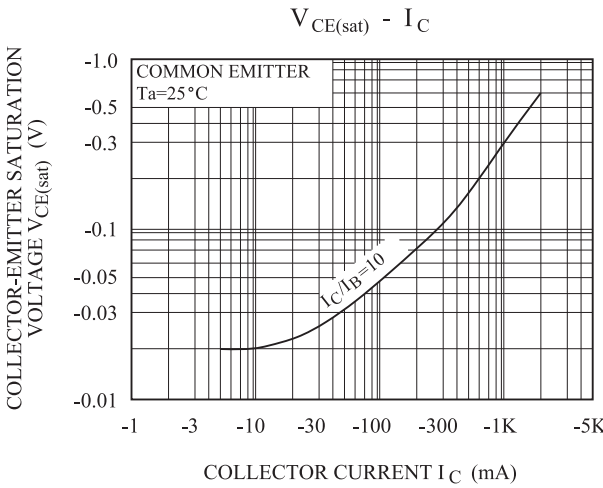
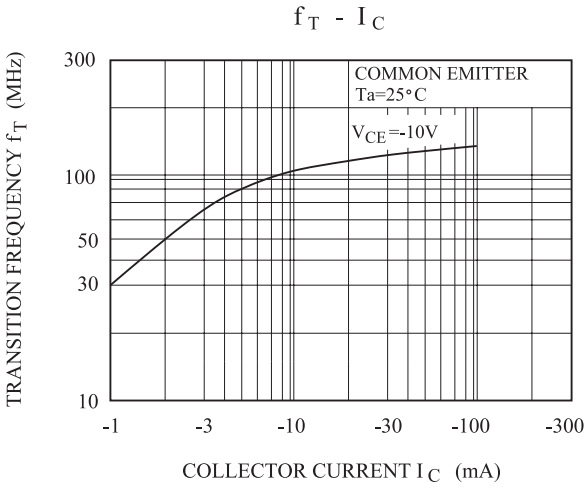
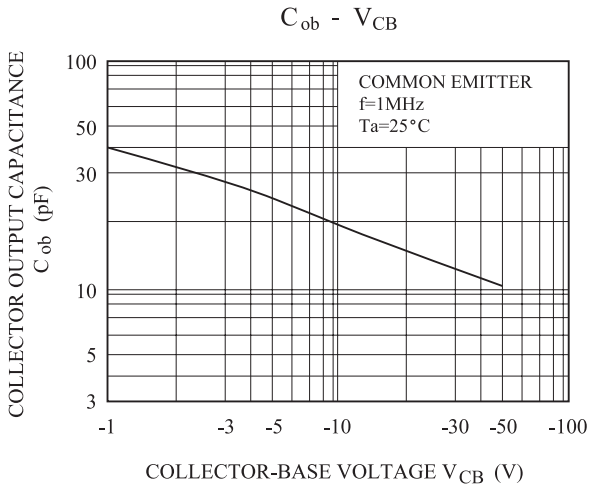
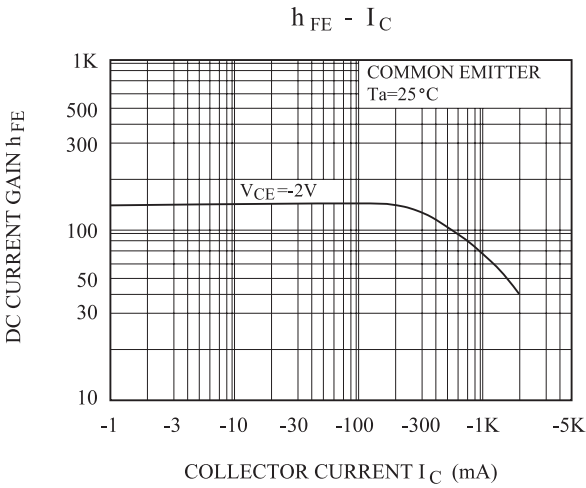
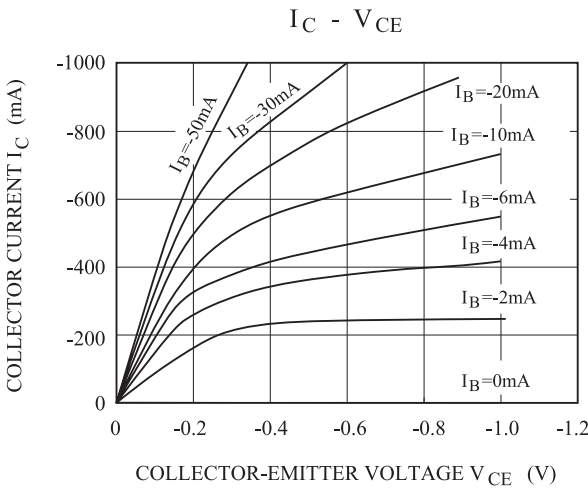
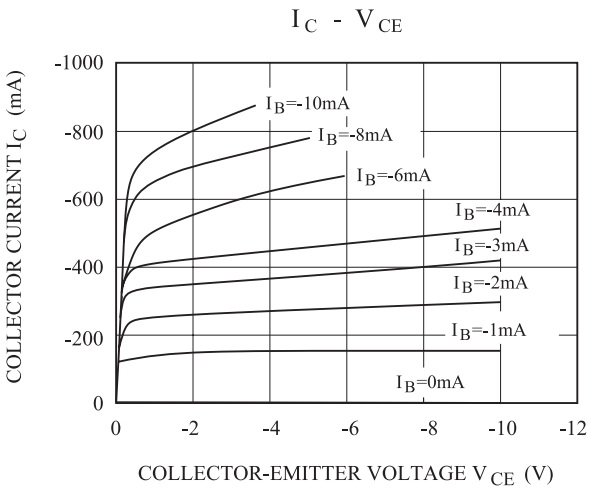


ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -50V, I_E = 0$	-	-	-100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -4V, I_C = 0$	-	-	-100	nA
DC Current Gain	$h_{FE}(1)$	$V_{CE} = -2V, I_C = -50\text{mA}$	60	-	200	
	$h_{FE}(2)$	$V_{CE} = -2V, I_C = -1A$	30	-	-	
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	60	-	-	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$	-	-0.2	-0.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$	-	-0.85	-1.2	V
Transition Frequency	f_T	$V_{CE} = -10V, I_C = -50\text{mA}$	-	150	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1\text{MHz}$	-	12	-	pF

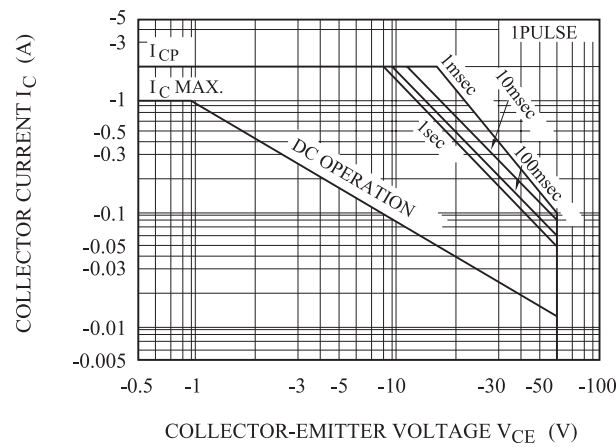
Note : $h_{FE}(1)$ Classification 0:60 ~ 120 , Y:100 ~ 200

MPS751



MPS751

SAFE OPERATING AREA



$P_C - T_a$

