

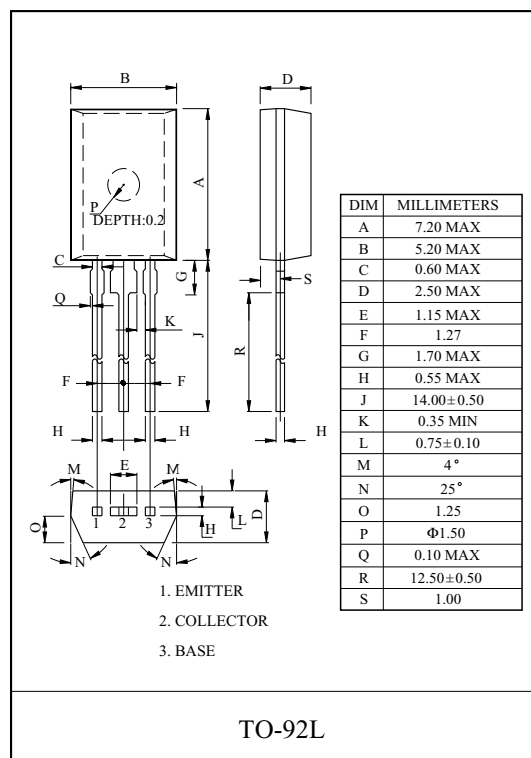
VOLTAGE REGULATOR, RELAY,
LAMP DRIVER, INDUSTRIAL USE

FEATURES

- High Voltage : $V_{CEO} = -50V(\text{Min.})$.
- High Current : $I_C(\text{Max.}) = -1A$.
- High Transition Frequency : $f_T = 150\text{MHz}(\text{Typ.})$.
- Wide Area of Safe Operation.
- Complementary to KTD863.

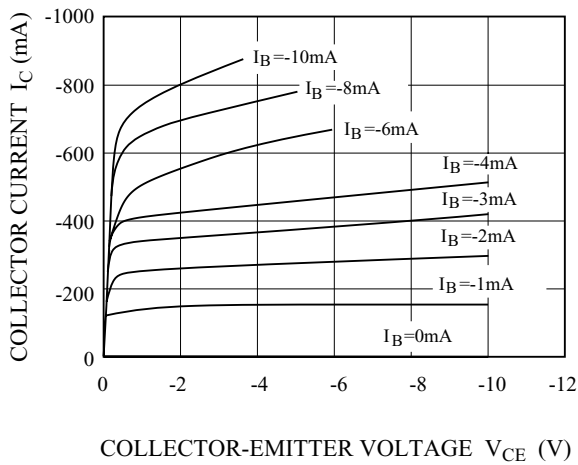
MAXIMUM RATING ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-60	V
Collector-Emitter Voltage		V_{CEO}	-50	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current	DC	I_C	-1	A
	Pulse	I_{CP}	-2	
Collector Power Dissipation		P_C	1	W
Junction Temperature		T_j	150	
Storage Temperature Range		T_{stg}	-55 150	

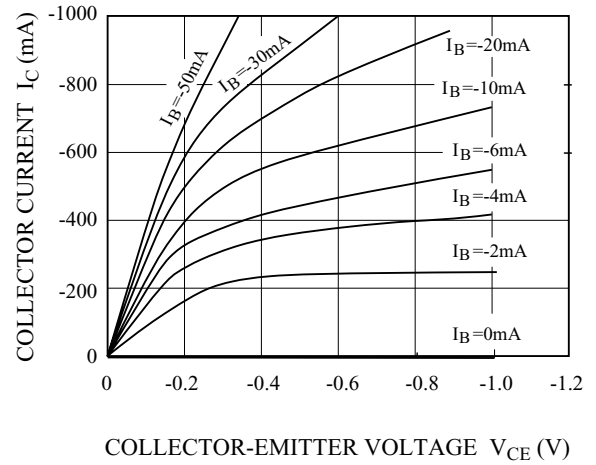
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -50V, I_E = 0$	-	-	-1	μA
Collector Cut-off Current	I_{CEO}	$V_{CE} = -50V, I_B = 0$	-	-	-1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -4V, I_C = 0$	-	-	-1	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE} = -2V, I_C = -50mA$	60	-	320	
	$h_{FE}(2)$	$V_{CE} = -2V, I_C = -1A$	30	-	-	
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-50	-	-	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$	-	-0.2	-0.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -500mA, I_B = -50mA$	-	-0.85	-1.2	V
Transition Frequency	f_T	$V_{CE} = -10V, I_C = -50mA$	-	150	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	20	-	pF

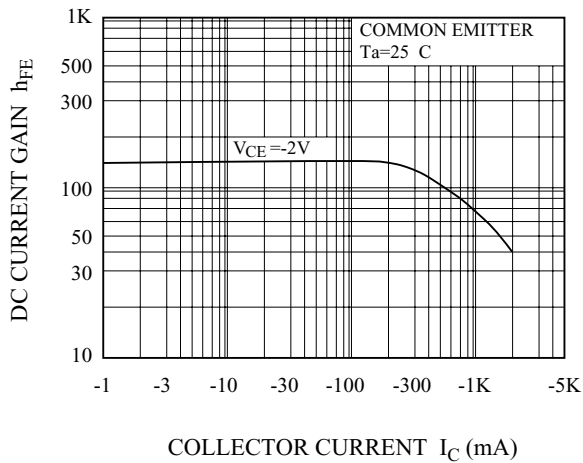
$I_C - V_{CE}$



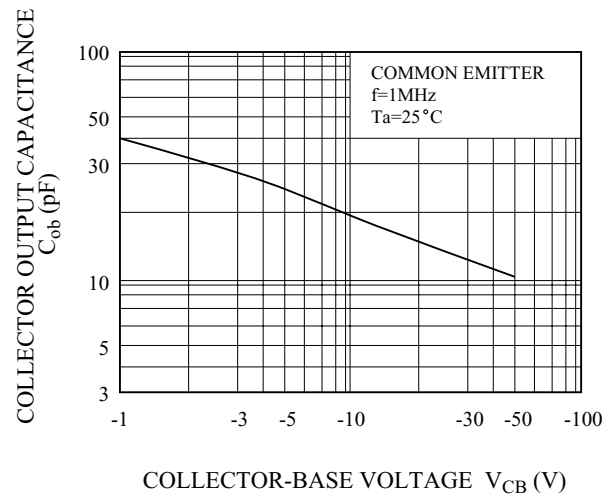
$I_C - V_{CE}$



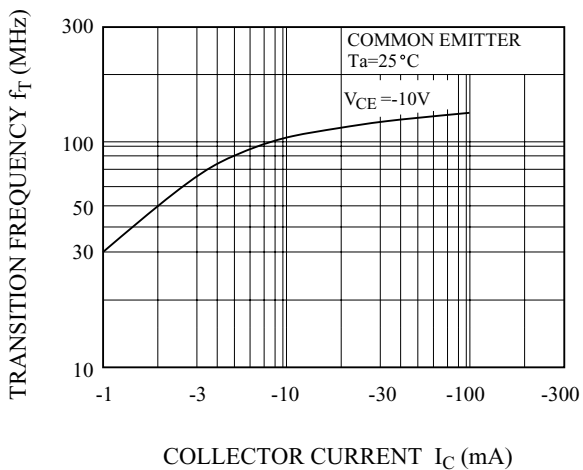
$h_{FE} - I_C$



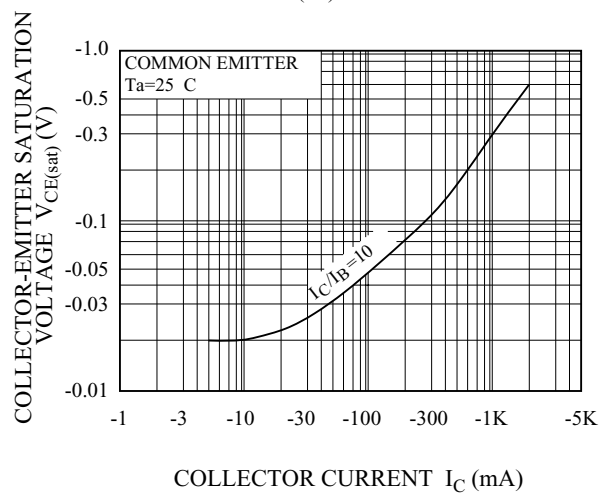
$C_{ob} - V_{CB}$



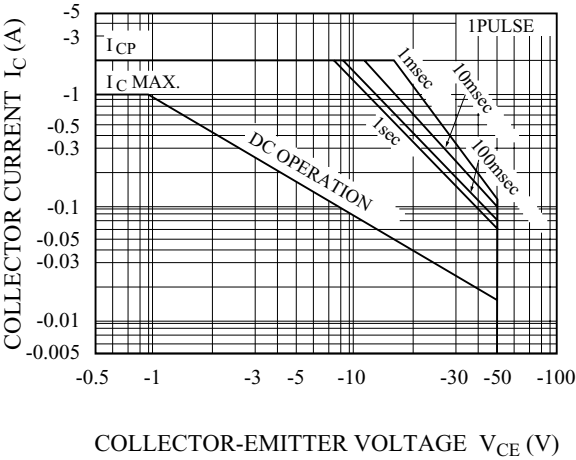
$f_T - I_C$



$V_{CE(sat)} - I_C$



SAFE OPERATING AREA



$P_c - T_a$

