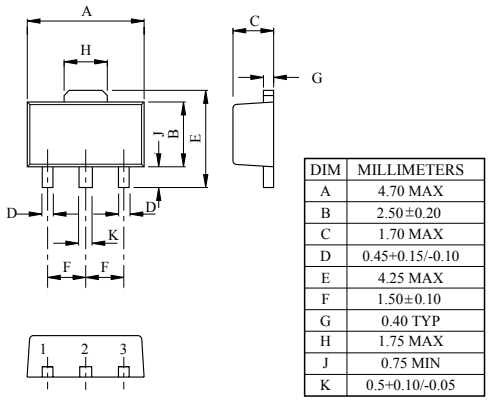
VOLTAGE REGULATOR, RELAY,
LAMP DRIVER, INDUSTRIAL USE

FEATURES

- High Voltage : V_{CEO}=60V(Min.).
- High Current : I_C(Max.)=1A.
- High Transition Frequency : f_T=150MHz (Typ.).
- Wide Area of Safe Operation.
- Complementary to KTA1668.



DIM	MILLIMETERS
A	4.70 MAX
B	2.50±0.20
C	1.70 MAX
D	0.45+0.15/-0.10
E	4.25 MAX
F	1.50±0.10
G	0.40 TYP
H	1.75 MAX
J	0.75 MIN
K	0.5+0.10/-0.05

1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER

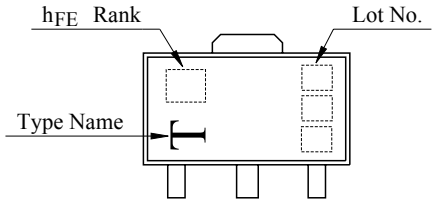
SOT-89

MAXIMUM RATING (Ta=25℃)

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	1	A
	Pulse	I_{CP}	2	
Collector Power Dissipation		P_C	500	mW
		P_C*	1	W
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55～150	℃

P_C* : Package mounted on ceramic substrate (250mm²x0.8t)

Marking

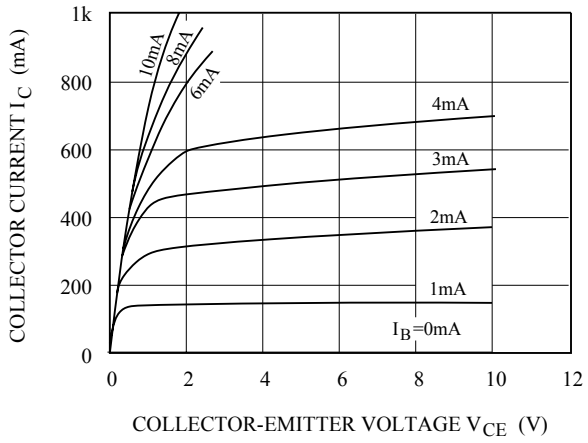


ELECTRICAL CHARACTERISTICS (Ta=25℃)

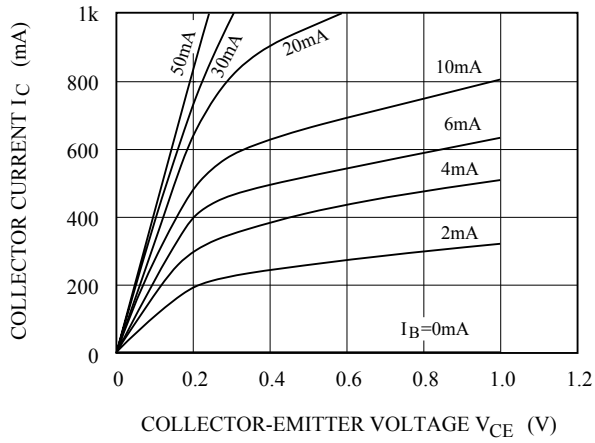
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=50V, I_E=0	-	-	100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB}=4V, I_C=0	-	-	100	nA
DC Current Gain	h_{FE}(1)	V_{CE}=2V, I_C=50mA	100	-	320	
	h_{FE}(2)	V_{CE}=2V, I_C=1A	30	-	-	
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	60	-	-	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=500mA, I_B=50mA	-	0.15	0.5	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, f=1MHz	-	12	-	pF

Note : h_{FE}(1) Classification Y:100～200, GR:160~320

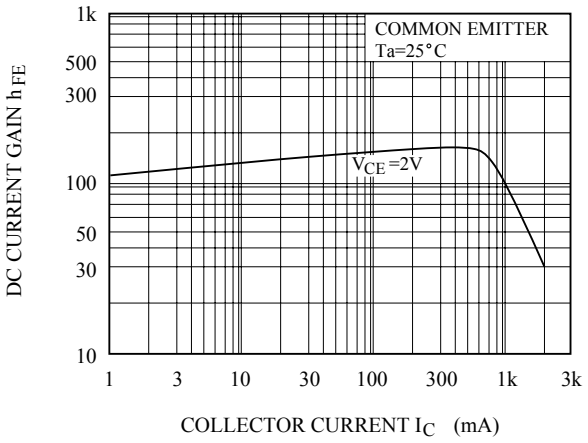
I_C - V_{CE}



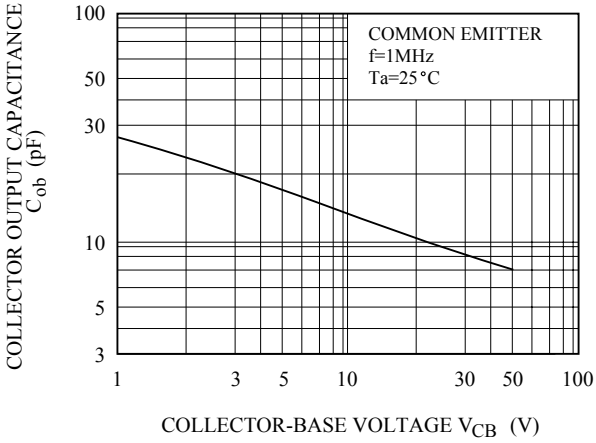
I_C - V_{CE}



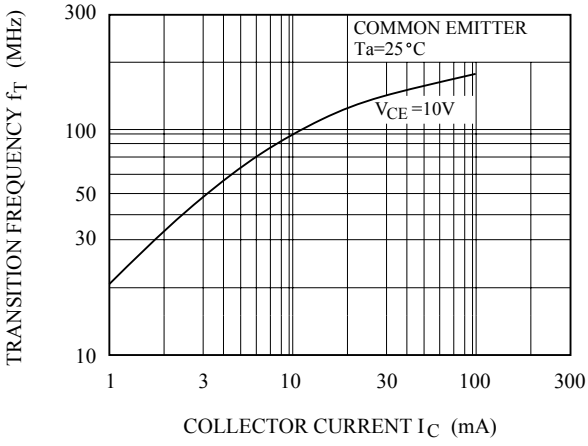
h_{FE} - I_C



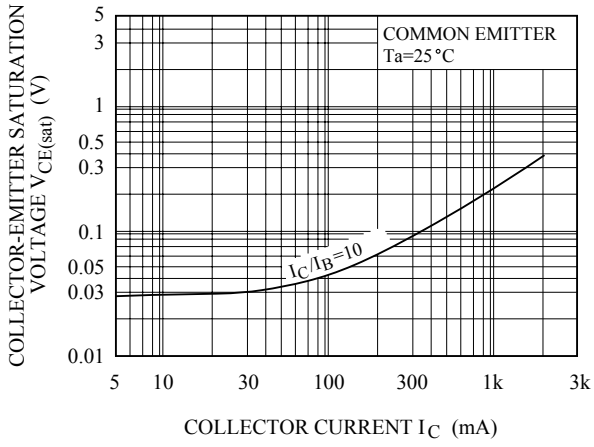
C_{ob} - V_{CB}



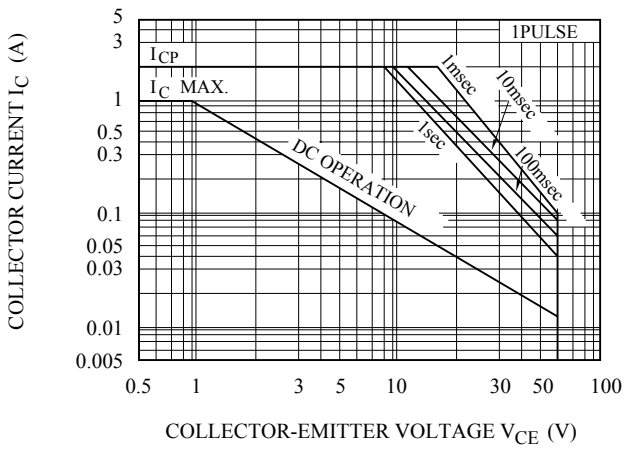
f_T - I_C



$V_{CE(sat)}$ - I_C



SAFE OPERATING AREA



Pc - Ta