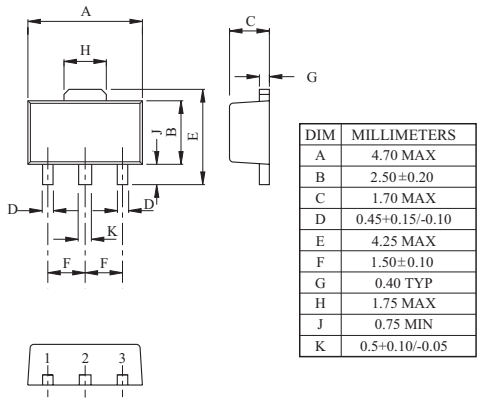
HIGH VOLTAGE APPLICATION

FEATURES

- High Voltage : V_{CEO}=160V.
- Large Continuous Collector Current Capability.
- Recommended for LED Drive Application.



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

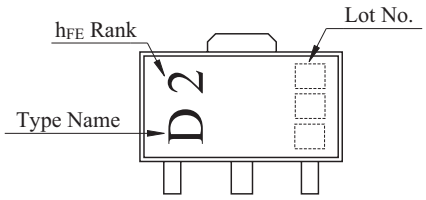
SOT-89

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	160	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1	A
Base Current	I_B	0.5	A
Collector Power Dissipation	P_C	0.5	W
	P_C*	1	
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 150	℃

* : Mounted on ceramic substrate (250mm² × 0.8t)

Marking

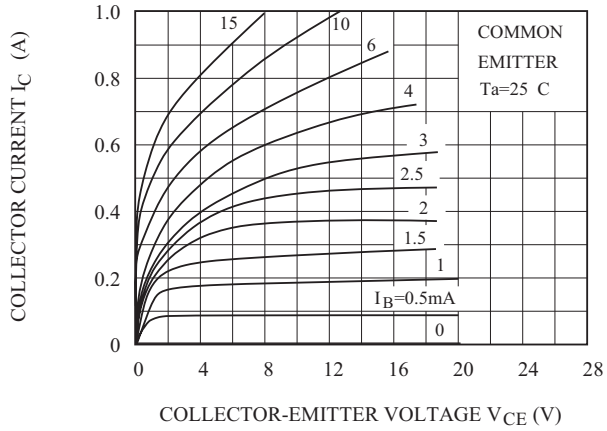


ELECTRICAL CHARACTERISTICS (Ta=25℃)

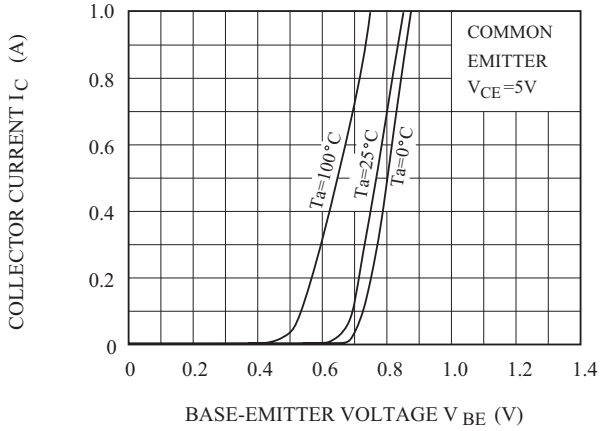
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=160V, I_E=0	-	-	1.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=6V, I_C=0	-	-	1.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=10mA, I_B=0	160	-	-	V
DC Current Gain	h_{FE} (Note)	V_{CE}=5V, I_C=200mA	160	-	320	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=500mA, I_B=50mA	-	-	1.5	V
Base-Emitter Voltage	V_{BE}	V_{CE}=5V, I_C=5mA	0.45	-	0.75	V
Transition Frequency	f_T	V_{CE}=5V, I_C=200mA	-	100	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	15	-	pF

Note : h_{FE} Classification Y(2) : 160~320

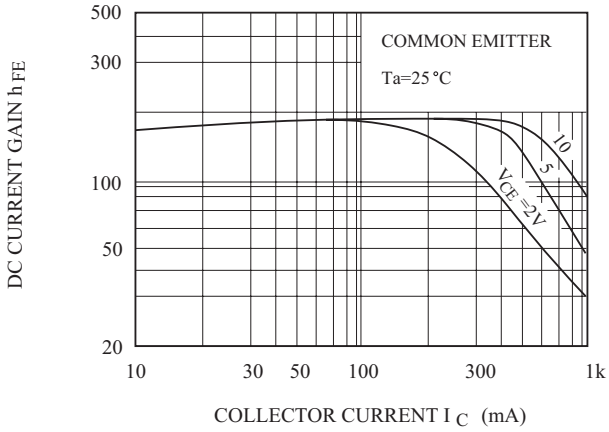
I_C - V_{CE}



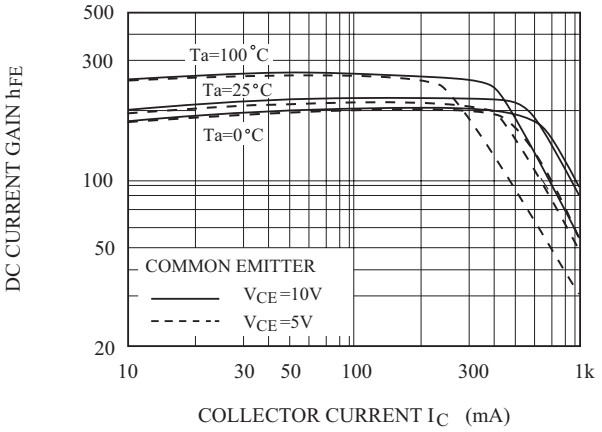
I_C - V_{BE}



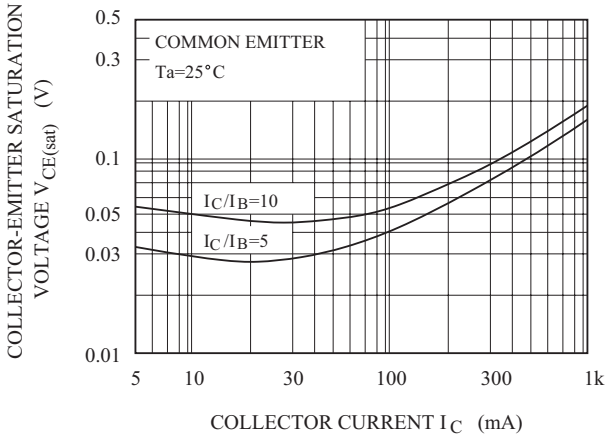
h_{FE} - I_C



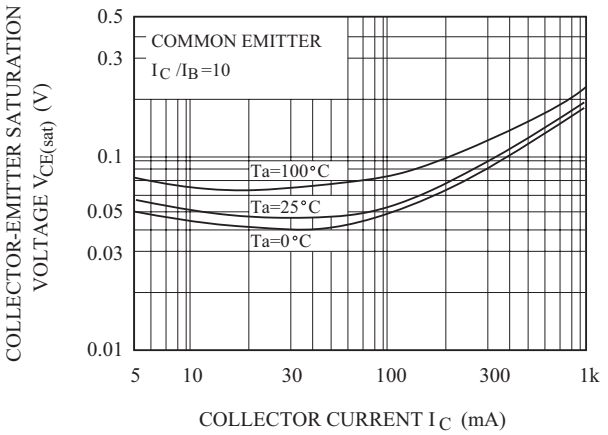
h_{FE} - I_C



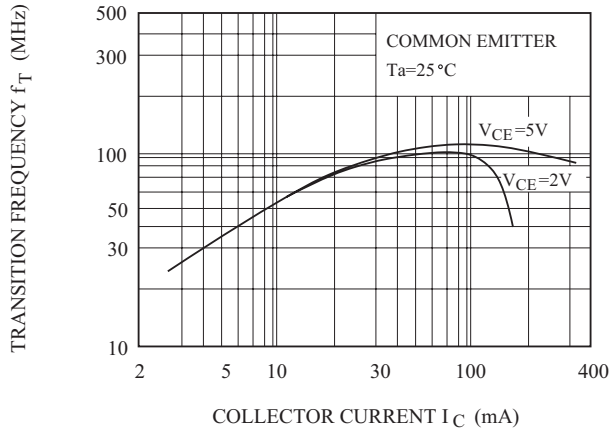
$V_{CE(sat)}$ - I_C



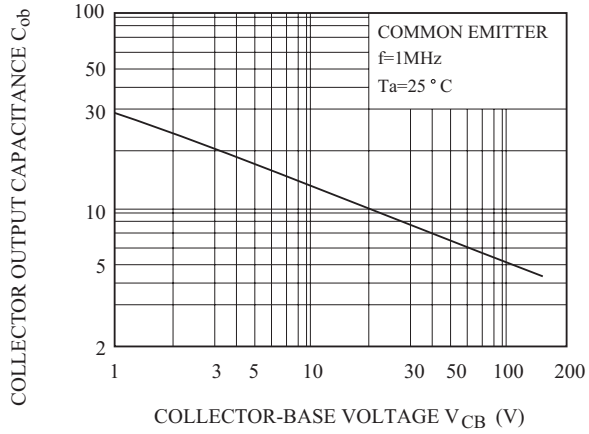
$V_{CE(sat)}$ - I_C



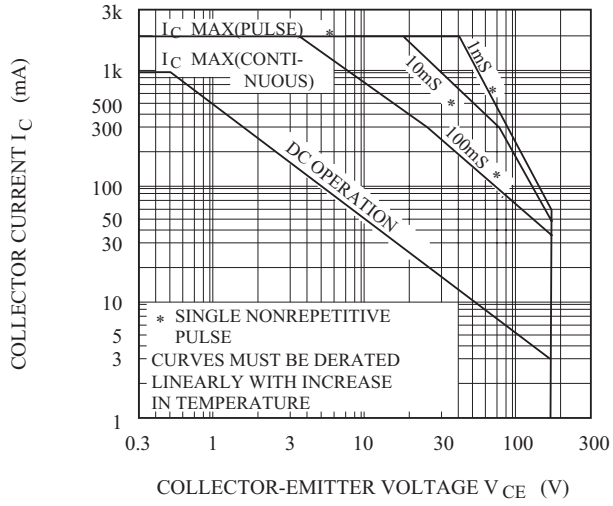
f_T - I_C



C_{ob} - V_{CB}



SAFE OPERATING AREA



P_C - Ta