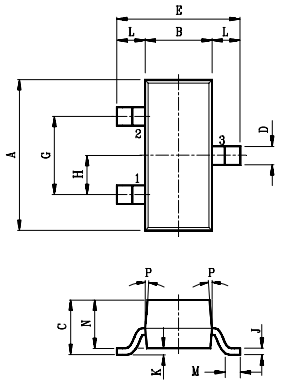
FOR MUTING AND SWITCHING APPLICATION.

FEATURES

- High Emitter-Base Voltage : V_{EBO}=25V(Min.)
- High Reverse h_{FE}
  : Reverse h_{FE}=150(Typ.) (V_{CE}=-2V, I_C=-2mA)
- Low on Resistance : R_{ON}=1Ω(Typ.), (I_B=5mA)



DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/-0.15
C	1.30 MAX
D	0.45+0.15/-0.05
E	2.40+0.30/-0.20
G	1.90
H	0.95
J	0.13+0.10/-0.05
K	0.00 ~ 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/-0.10
P	7°

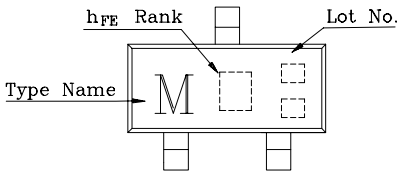
1. EMITTER
2. BASE
3. COLLECTOR

SOT-23

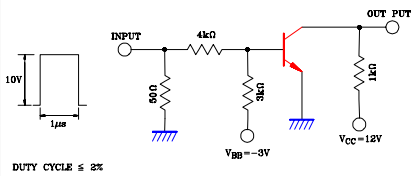
MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	25	V
Collector Current	I_C	300	mA
Base Current	I_B	60	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	125	℃
Storage Temperature Range	T_{stg}	-55~125	℃

Marking

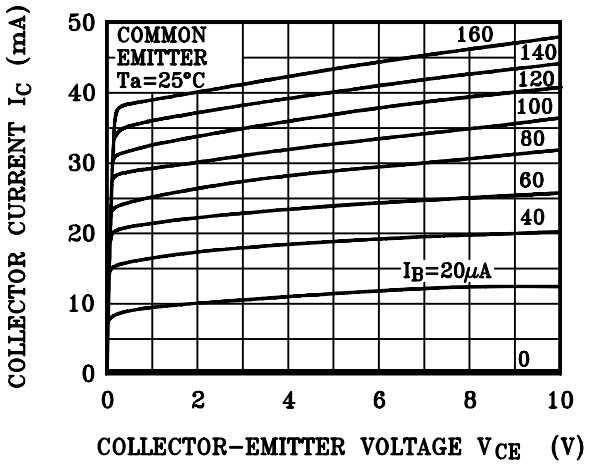


ELECTRICAL CHARACTERISTICS (Ta=25℃)

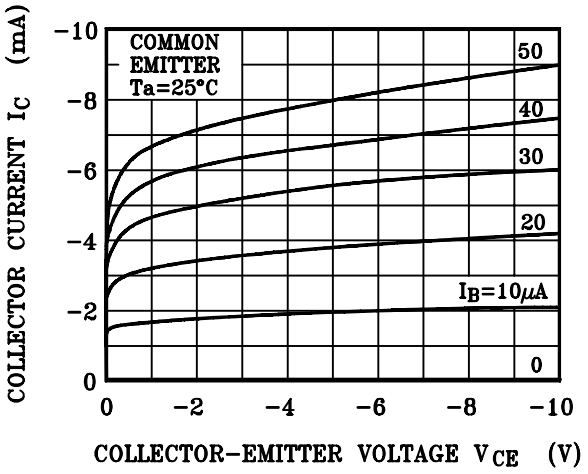
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=50V, I_E=0	-	-	0.1	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=25V, I_C=0	-	-	0.1	μA
DC Current Gain (Note)		h_{FE}	V_{CE}=2V, I_C=4mA	200	-	1200	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=30mA, I_B=3mA	-	0.042	0.3	V
Base-Emitter Voltage		V_{BE}	V_{CE}=2V, I_C=4mA	-	0.61	-	V
Transition Frequency		f_T	V_{CE}=6V, I_C=4mA	-	30	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	4.8	7	pF
Switching Time	Turn-on Time	t_{ON}		-	160	-	nS
	Storage Time	t_{stg}		-	500	-	
	Fall Time	t_f		-	130	-	

Note : h_{FE} Classification A: 200~700 , B: 350~1200

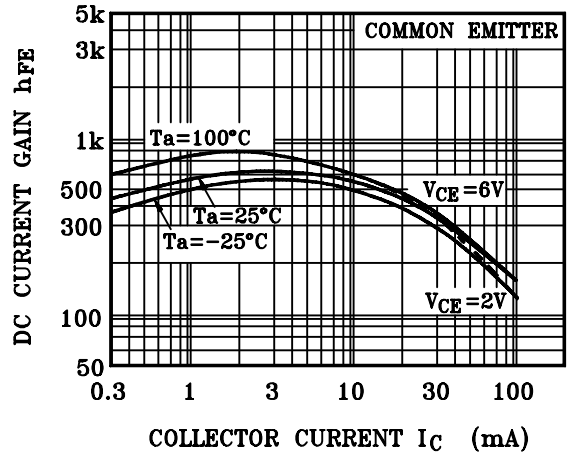
I_C – V_{CE}



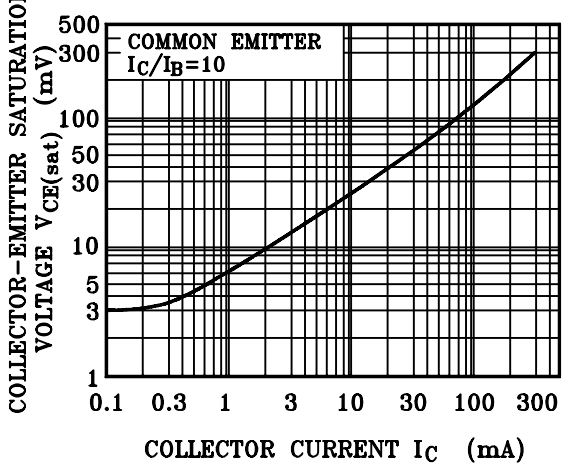
I_C – V_{CE} (REVERSE REGION)



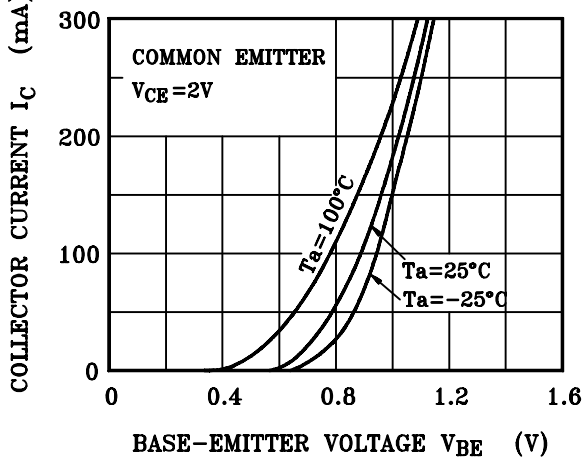
h_{FE} – I_C



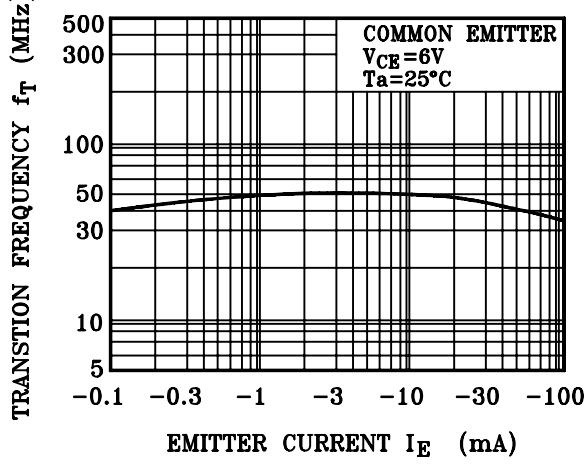
$V_{CE(sat)}$ – I_C

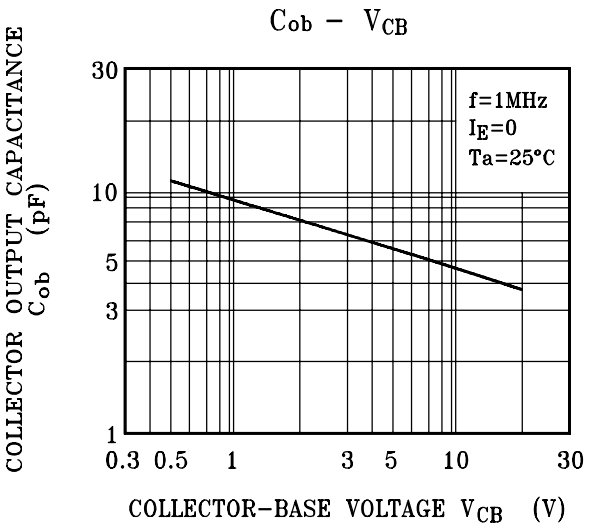


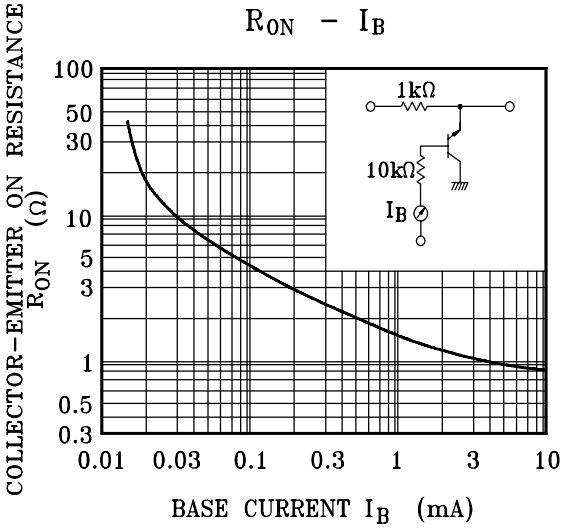
I_C – V_{BE}

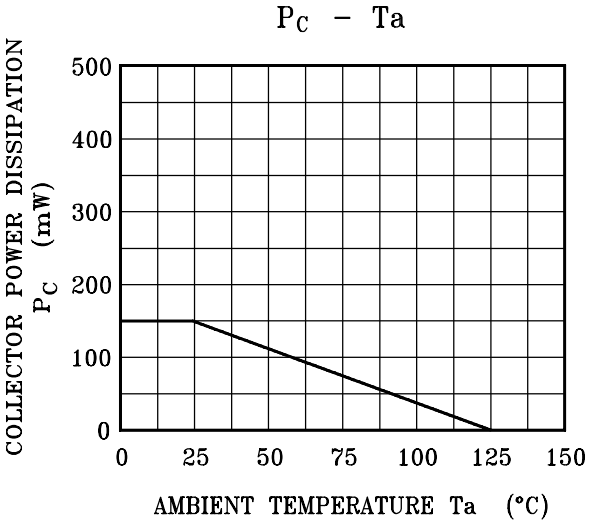


f_T – I_E




C_{ob} – V_{CB}
COLLECTOR OUTPUT CAPACITANCE C_{ob} (pF)
30
10
5
3
1
0.3 0.5 1 3 5 10 30
f=1MHz
I_E=0
Ta=25°C
COLLECTOR-BASE VOLTAGE V_{CB} (V)


R_{ON} – I_B
COLLECTOR-EMITTER ON RESISTANCE R_{ON} (Ω)
100
50
30
10
5
3
1
0.5
0.3
0.01 0.03 0.1 0.3 1 3 10
1kΩ
10kΩ
I_B
BASE CURRENT I_B (mA)


P_C – Ta
COLLECTOR POWER DISSIPATION P_C (mW)
500
400
300
200
100
0
0 25 50 75 100 125 150
AMBIENT TEMPERATURE Ta (°C)