

VOLTAGE REGULATORS, RELAY DRIVERS
LAMP DRIVERS, ELECTRICAL EQUIPMENT

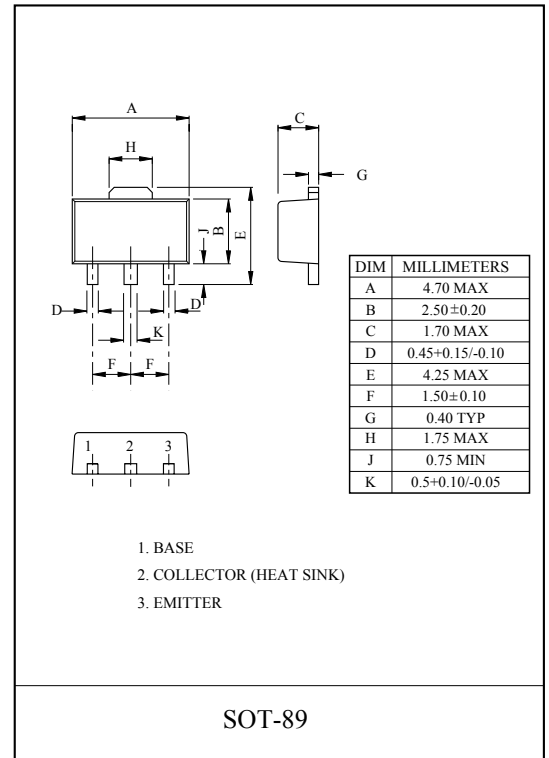
FEATURES

- Adoption of MBIT processes.
- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Large current capacity and wide ASO.
- Complementary to KTB1124.

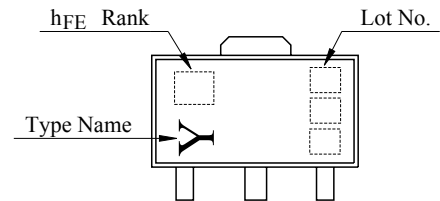
MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	3	A
Collector Current(Pulse)	I_{CP}	6	A
Collector Power Dissipation	P_C	500	mW
	P_C^*	1	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

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



Marking

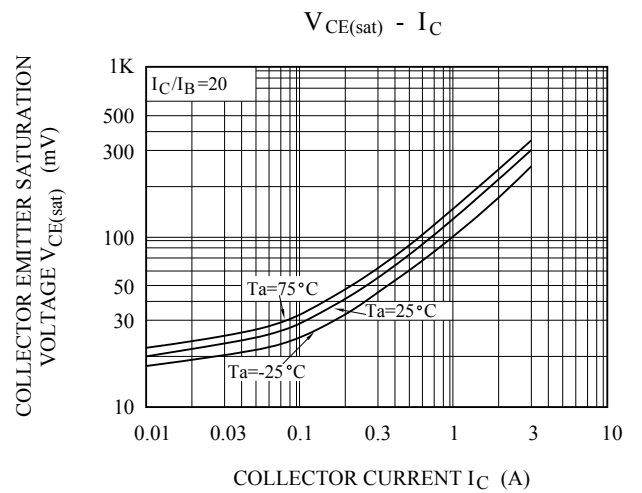
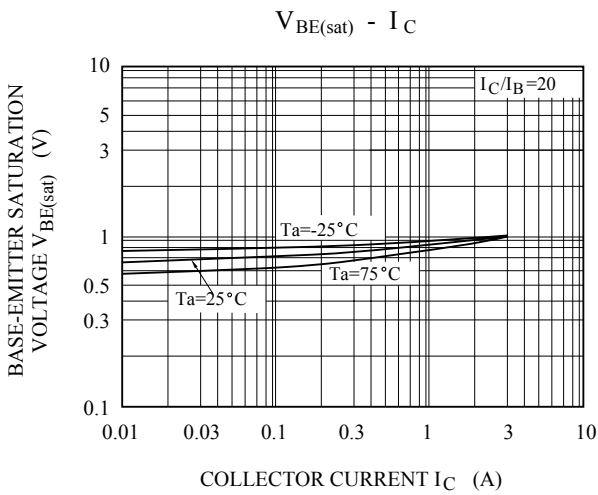
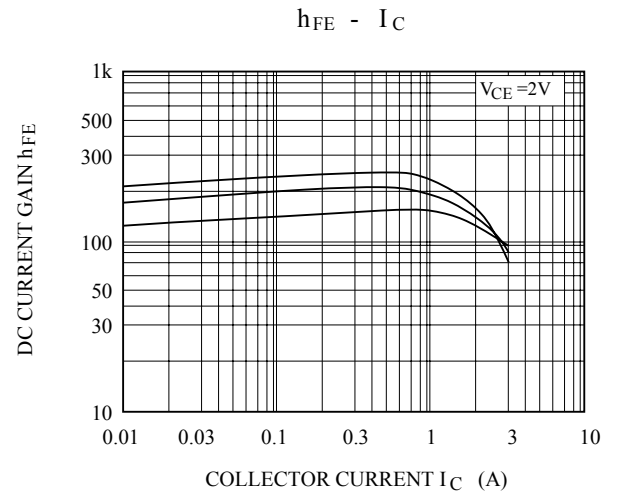
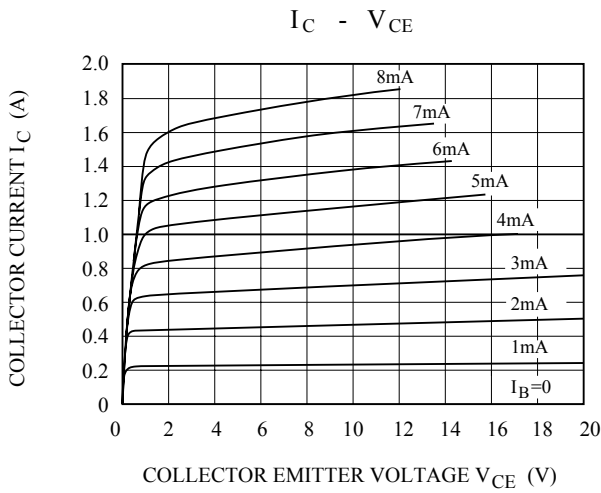
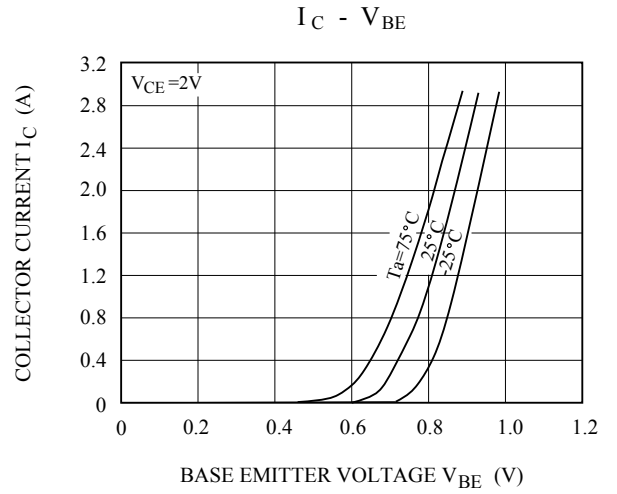
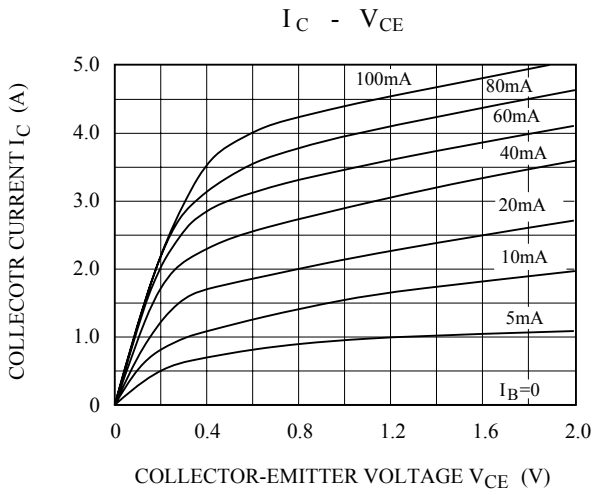


ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Collector Cut-off Current	I_{CBO}	$V_{CB}=40V, I_E=0$	-	-	1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=4V, I_C=0$	-	-	1	μA
DC Current Gain	$h_{FE}(1)$ (Note)	$V_{CE}=2V, I_C=100mA$	100	-	400	
	$h_{FE}(2)$	$V_{CE}=2V, I_C=3A$	35	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2A, I_B=100mA$	-	0.19	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=2A, I_B=100mA$	-	0.94	1.2	V
Transition Frequency	f_T	$V_{CE}=10V, I_C=50mA$	-	150	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz, I_E=0$	-	25	-	pF
Switching Time	Turn-on Time	t_{on}	-	70	-	nS
	Storage Time	t_{stg}	-	650	-	
	Fall Time	t_f	-	35	-	

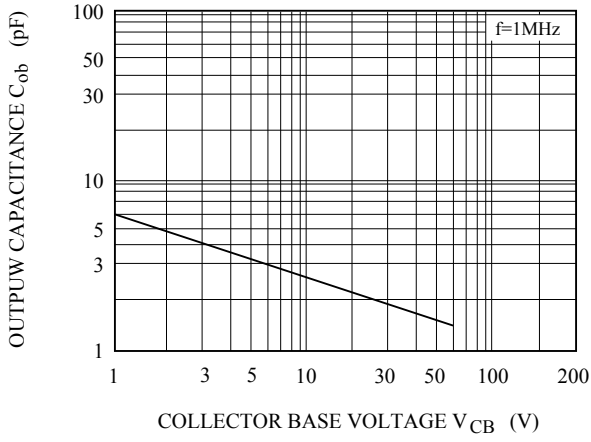
Note : $h_{FE}(1)$ Classification A:100 ~ 200, B:140 ~ 280, C:200 ~ 400

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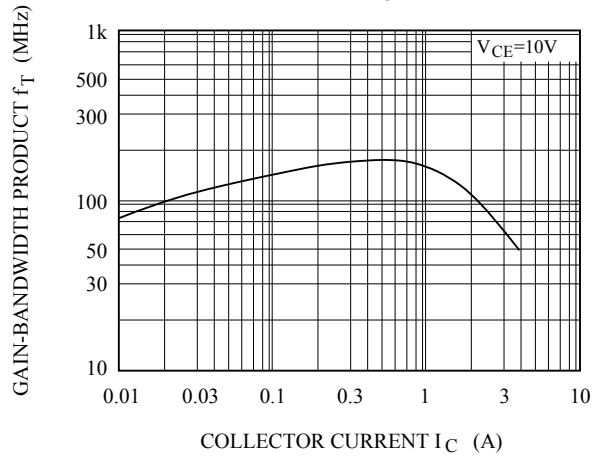


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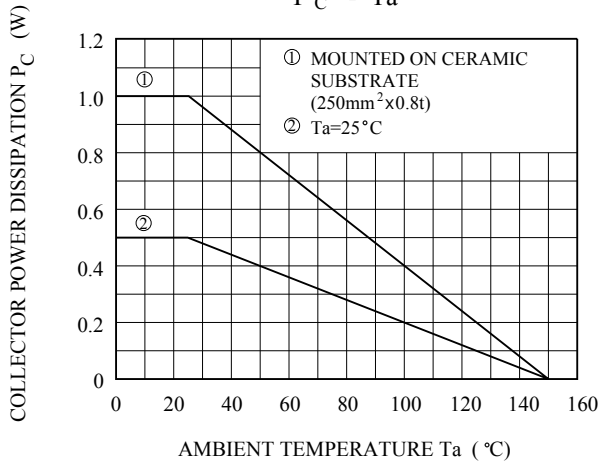
$C_{ob} - V_{CB}$



$f_T - I_C$



$P_C - T_a$



SAFE OPERATING AREA

