

VOLTAGE REGULATORS, RELAY DRIVERS  
LAMP DRIVERS, ELECTRICAL EQUIPMENT

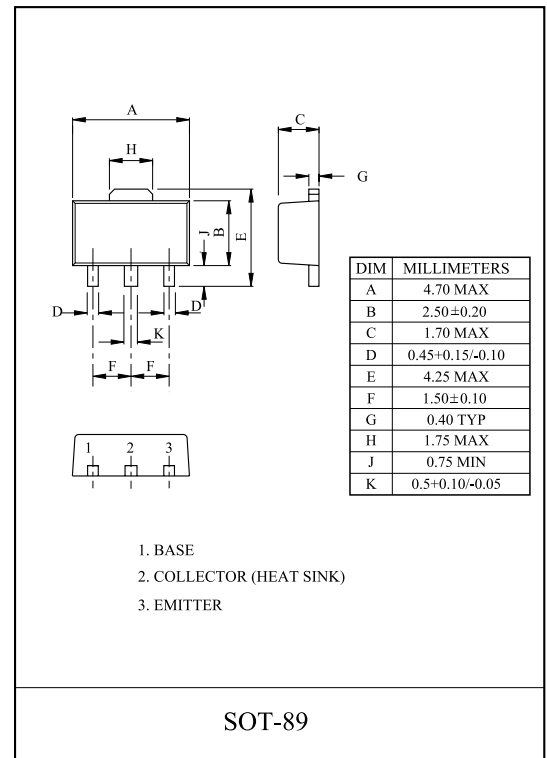
### FEATURES

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

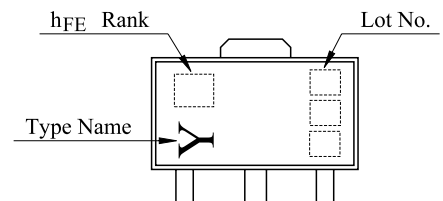
### MAXIMUM RATING (Ta=25°C)

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
Base Current	$I_B$	600	mA
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(250mm<sup>2</sup> × 0.8t)



### Marking



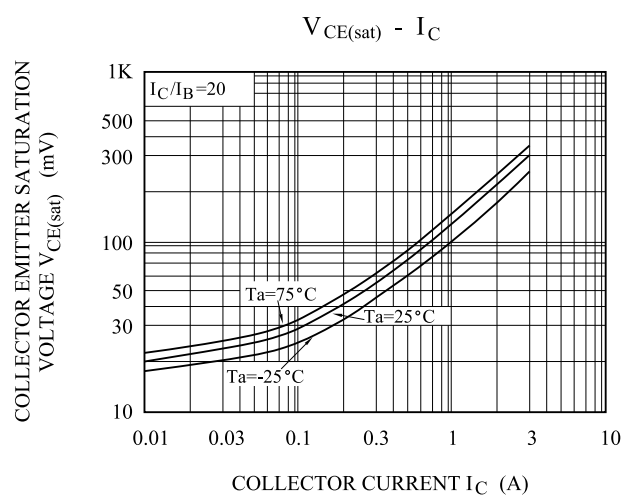
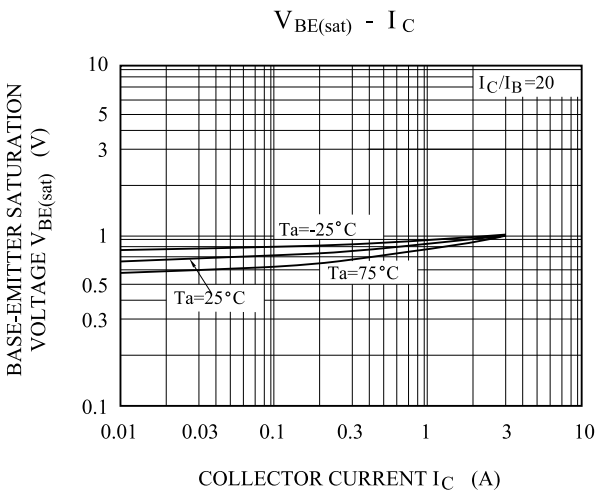
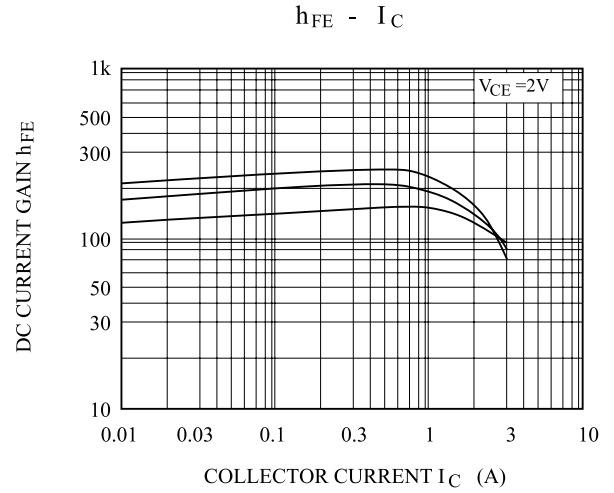
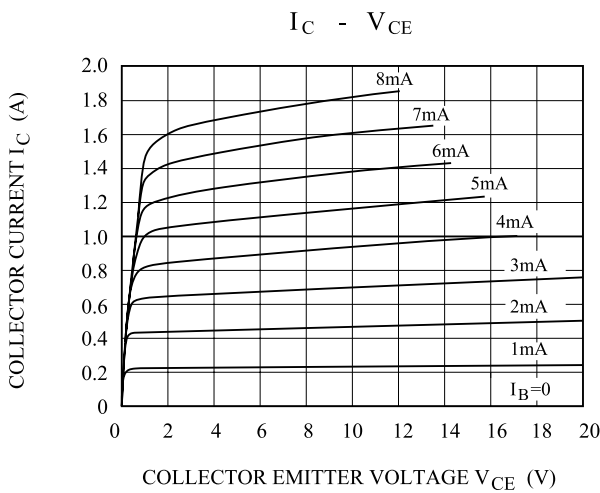
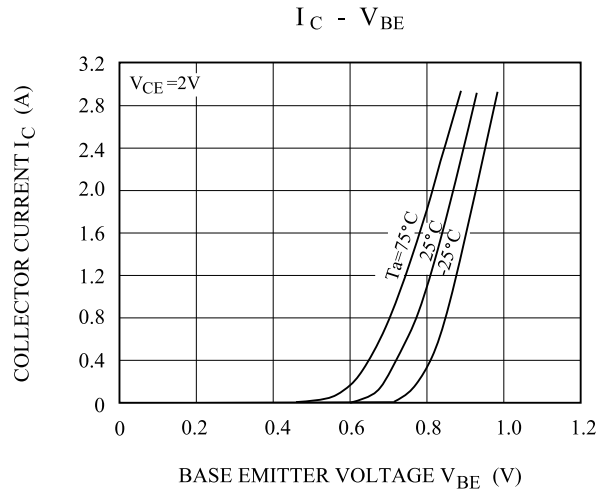
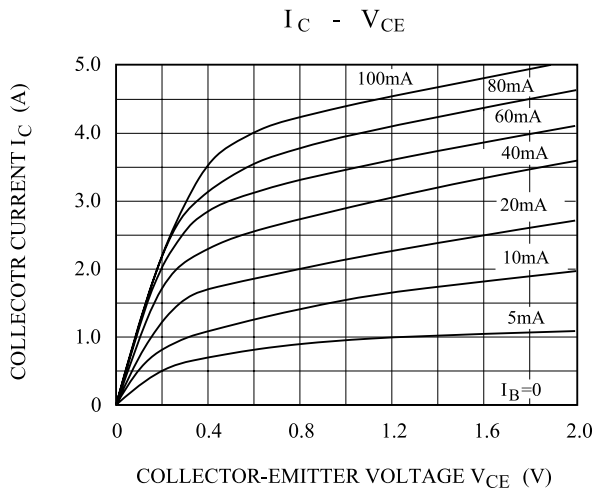
### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=40V, I_E=0$	-	-	1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=4V, I_C=0$	-	-	1	$\mu A$
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	-	

10I<sub>B1</sub>=10I<sub>B2</sub>=I<sub>C</sub>=1A

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

# KTD1624



# KTD1624

