

RELAY DRIVERS, LAMP DRIVERS,
MOTOR DRIVERS, STROBES APPLICATION.

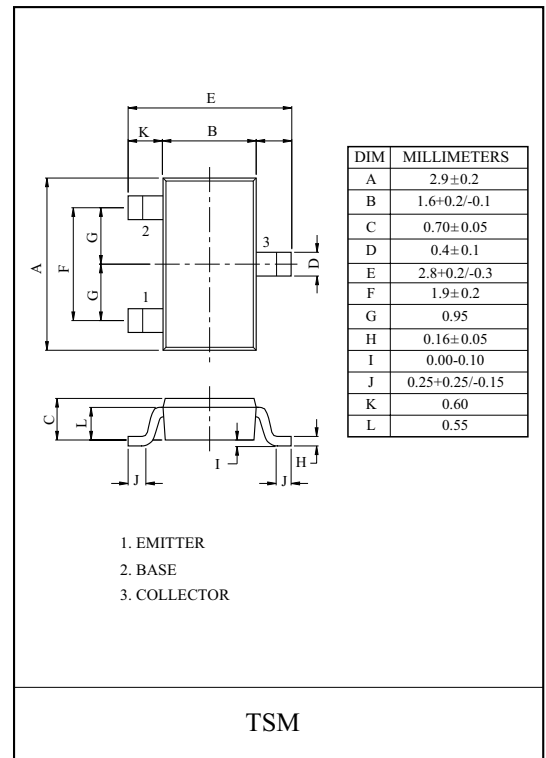
FEATURES

- Adoption of MBIT Processes.
- Large Current Capacitance.
- Low Collector-to-Emitter Saturation Voltage.
- High-Speed Switching.
- Ultrasmall Package Facilitates Miniaturization in end Products.
- High Allowable Power Dissipation.
- Complementary to KTC3542T.

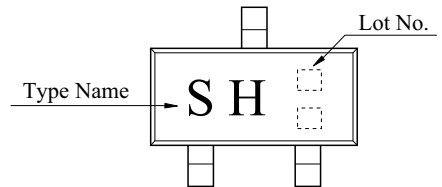
MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-30	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	DC	I_C	-3
	Pulse	I_{CP}	-5
Base Current	I_B	-600	mA
Collector Power Dissipation	P_C^*	0.9	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

* Package mounted on a ceramic board (600mm² × 0.8mm)



Marking

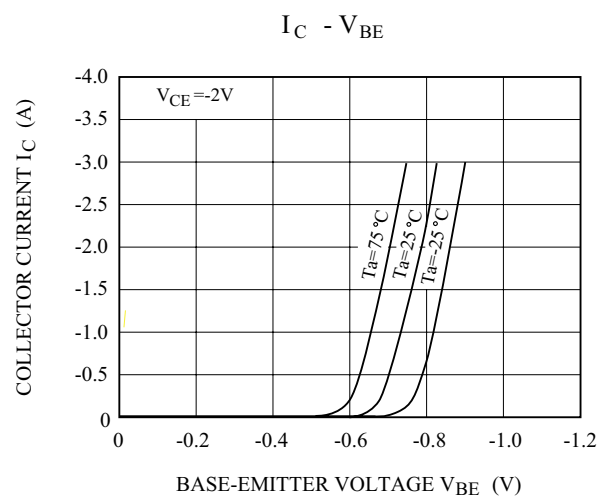
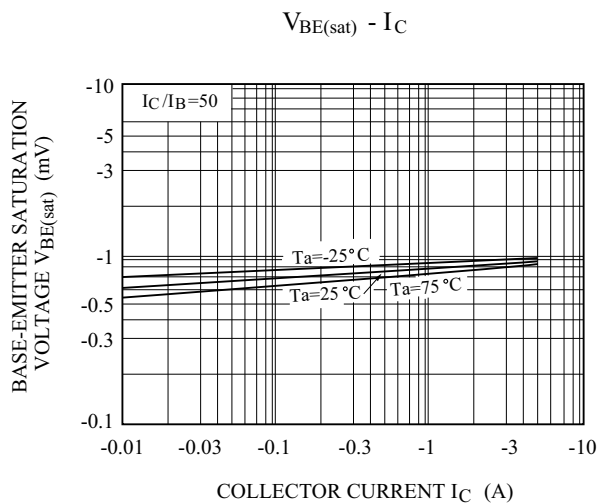
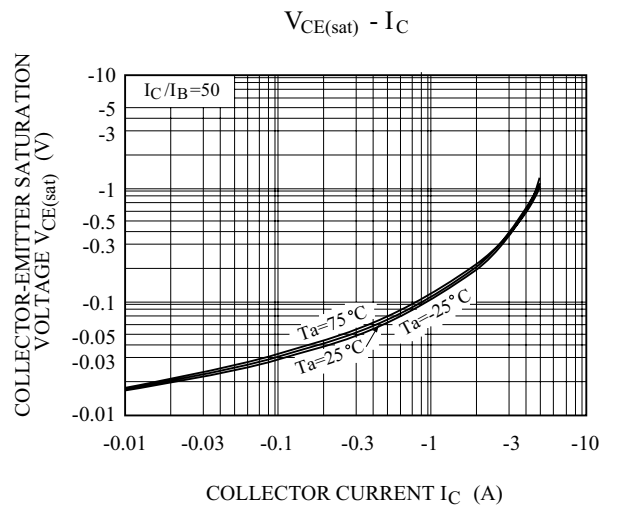
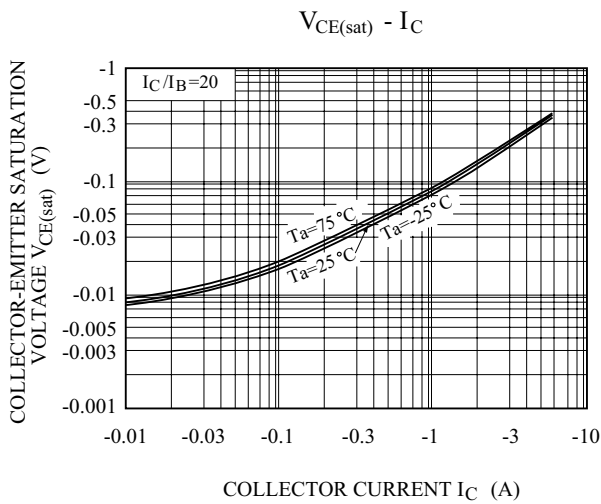
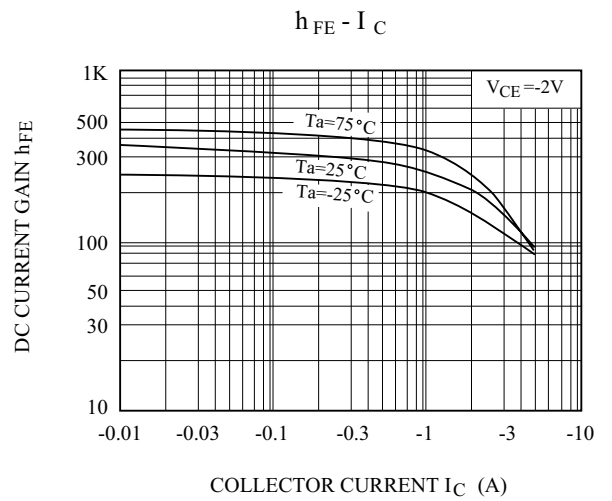
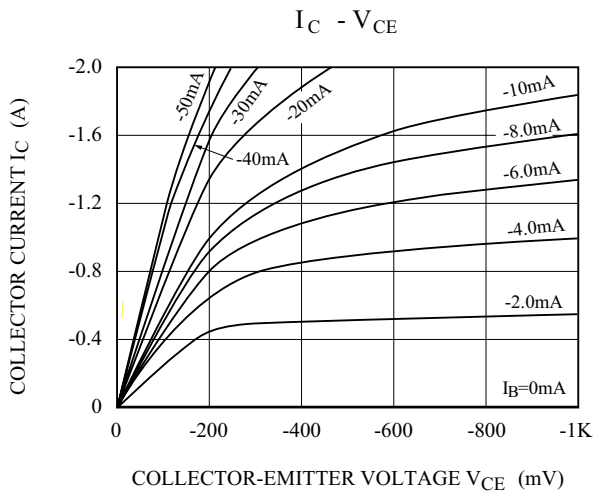


ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=-30V, I_E=0$	-	-	-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-4V, I_C=0$	-	-	-0.1	μA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-30	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-30	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-5	-	-	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=-1.5A, I_B=-30mA$	-	-155	-230	mV
	$V_{CE(sat)2}$	$I_C=-1.5A, I_B=-75mA$	-	-105	-155	mV
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-1.5A, I_B=-30mA$	-	-0.83	-1.2	V
DC Current Gain	h_{FE}	$V_{CE}=-2V, I_C=-500mA$	200	-	560	
Transition Frequency	f_T	$V_{CE}=-10V, I_C=-500mA$	-	380	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-10V, f=1MHz$	-	25	-	pF
Switching Time	Turn-On Time	t_{on}	-	50	-	nS
	Storage Time	t_{stg}	-	270	-	
	Fall Time	t_f	-	25	-	

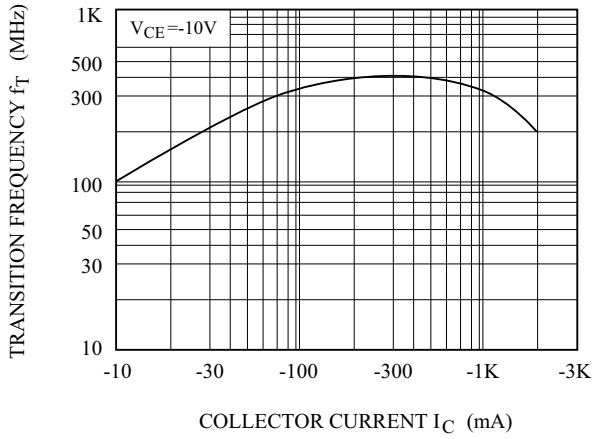
$PW=20\mu s$
 $DC \leq 1\%$
 $-I_{B1}$
 I_{B2}
 INPUT
 50Ω
 V_R
 R_B
 $100\mu F$
 $470\mu F$
 $V_{BE}=5V$
 $V_{CC}=-12V$
 $-20I_{B1}=20I_{B2}=I_C=-500mA$
 OUTPUT
 24Ω

KTA1542T

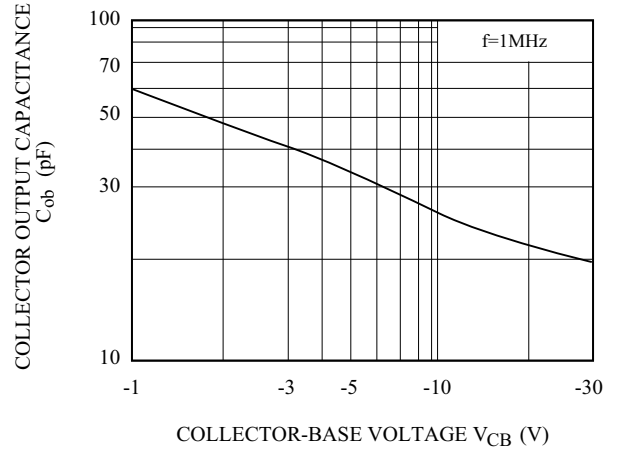


KTA1542T

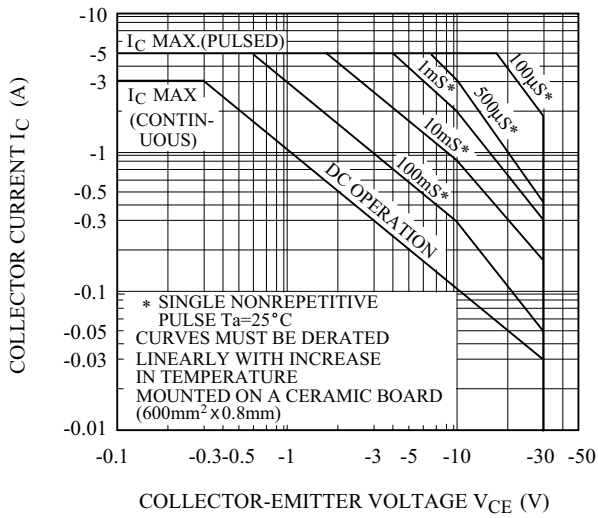
$f_T - I_C$



$C_{ob} - V_{CB}$



SAFE OPERATING AREA



$P_c - T_a$

