

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

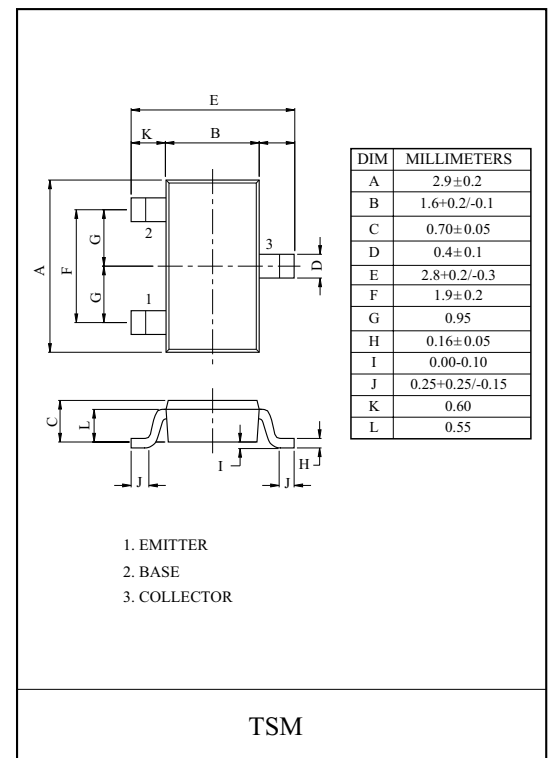
### FEATURES

- 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 KTA1542T.

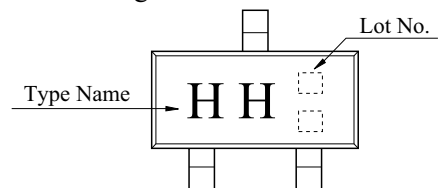
### MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		$V_{CBO}$	40	V
Collector-Emitter Voltage		$V_{CEO}$	30	V
Emitter-Base Voltage		$V_{EBO}$	5	V
Collector Current	DC	$I_C$	3	A
	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 (600mm<sup>2</sup> × 0.8mm)



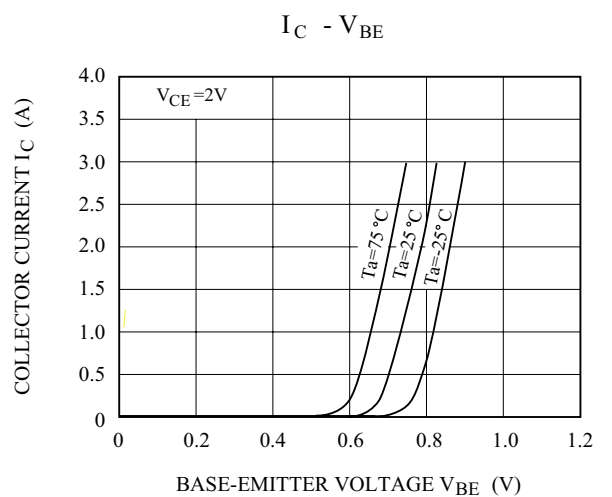
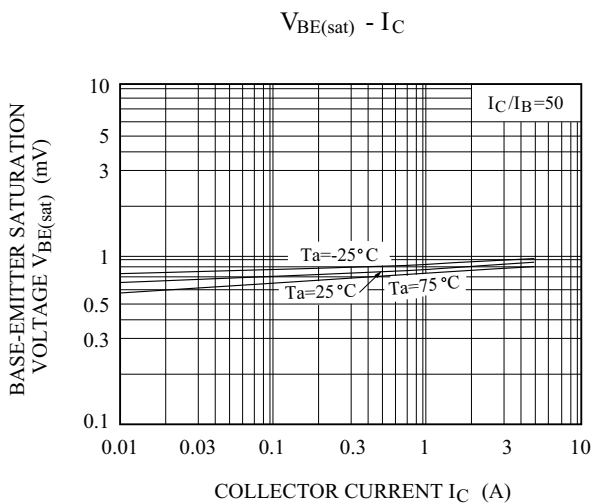
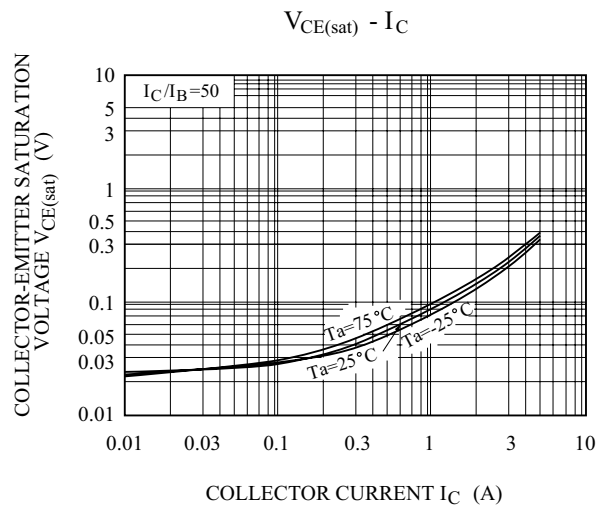
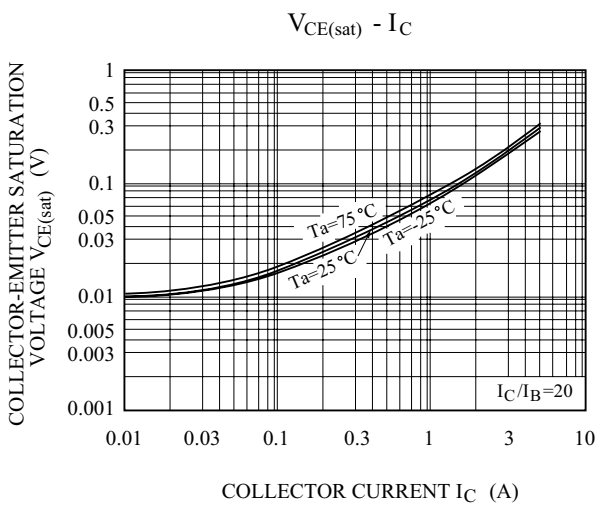
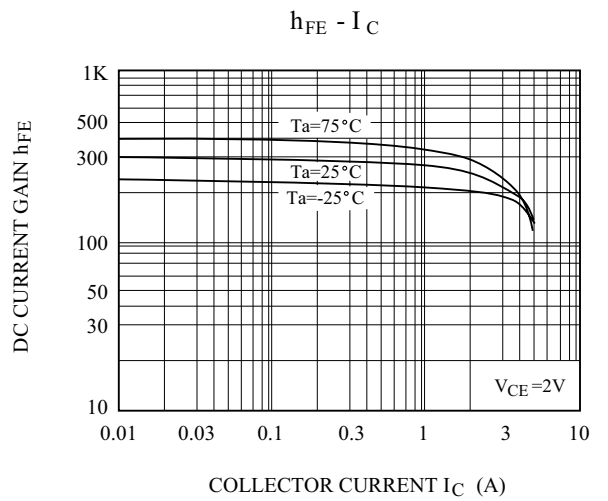
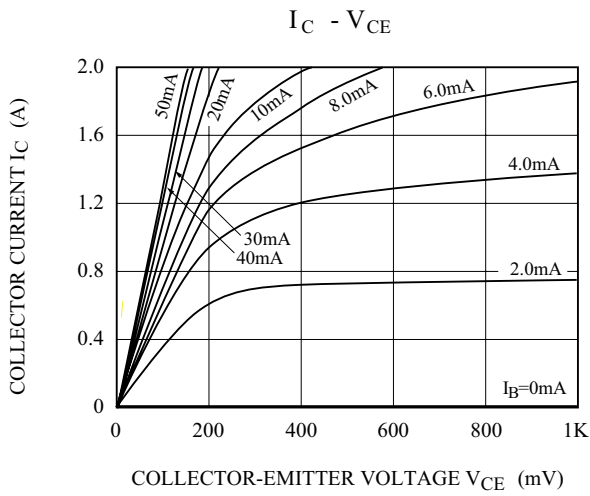
### Marking



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

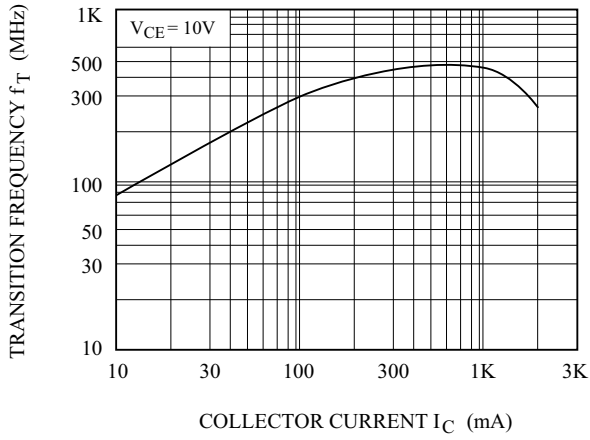
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		$I_{CBO}$	$V_{CB}=30V, I_E=0$	-	-	0.1	$\mu A$
Emitter Cut-off Current		$I_{EBO}$	$V_{EB}=4V, I_C=0$	-	-	0.1	$\mu A$
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=10 \mu A, I_E=0$	40	-	-	V
Collector-Emitter Breakdown 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		$V_{CE(sat)1}$	$I_C=1.5A, I_B=30mA$	-	120	180	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		$f_T$	$V_{CE}=10V, I_C=500mA$	-	450	-	MHz
Collector Output Capacitance		$C_{ob}$	$V_{CB}=10V, f=1MHz$	-	20	-	pF
Switching Time	Turn-On Time	$t_{on}$		-	30	-	nS
	Storage Time	$t_{stg}$		-	300	-	
	Fall Time	$t_f$		-	15	-	

# KTC3542T

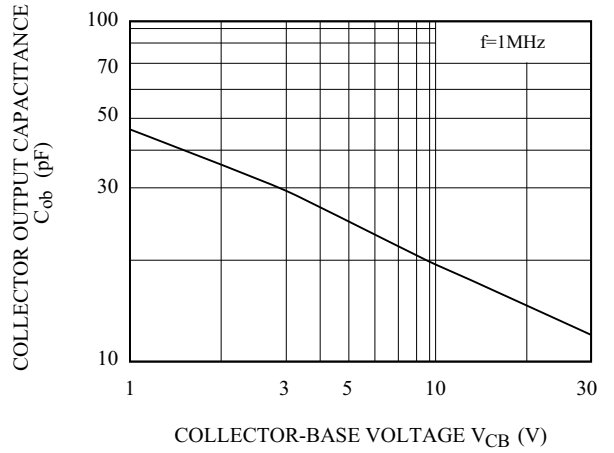


# KTC3542T

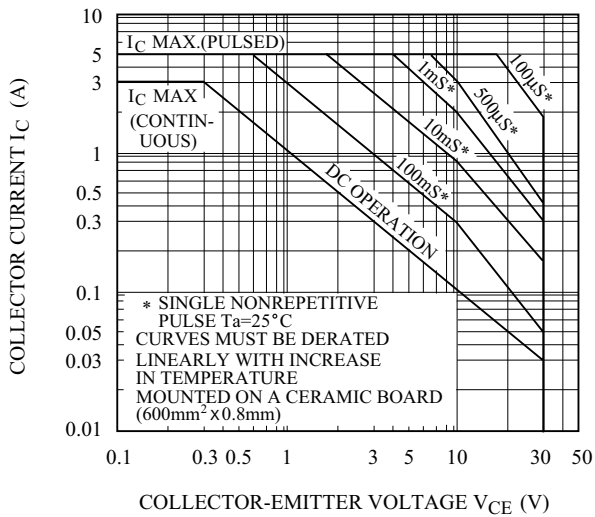
$f_T - I_C$



$C_{ob} - V_{CB}$



SAFE OPERATING AREA



$P_c - T_a$

