

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

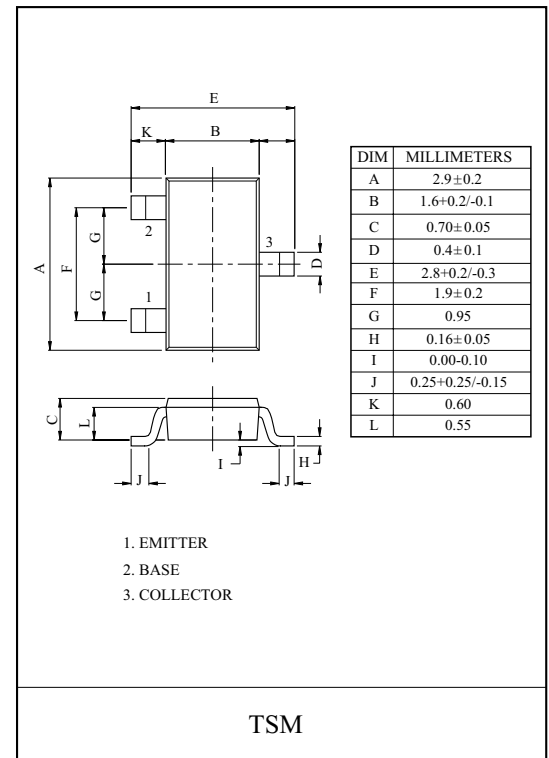
FEATURES

- Adoption of MBIT Processes.
- High Current Capacitance.
- Low Collector-to-Emitter Saturation Voltage.
- High-Speed Switching.
- Ultrasmall-sized Package Permitting Applied sets to be made small and slim.
- High Allowable Power Dissipation.
- Complementary to KTA1543T.

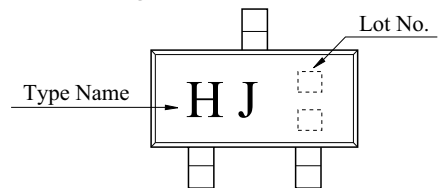
MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	40	V
Collector-Emitter Voltage		V_{CEO}	30	V
Emitter-Base Voltage		V_{EBO}	6	V
Collector Current	DC	I_C	5	A
	Pulse	I_{CP}	7	
Base Current		I_B	1.2	A
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

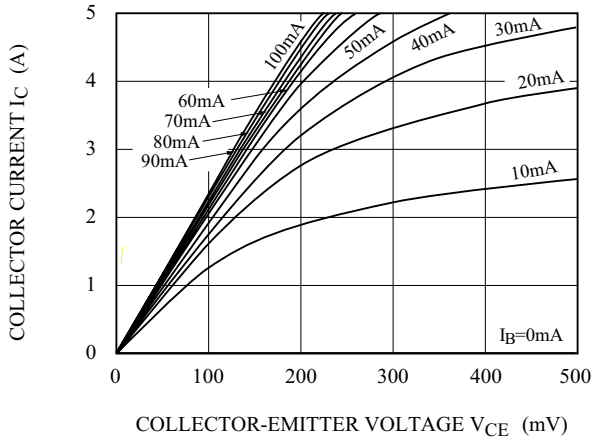


ELECTRICAL CHARACTERISTICS (Ta=25°C)

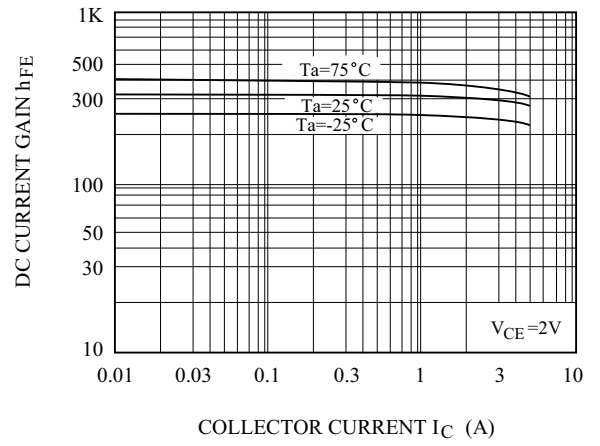
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=30V, I_E=0$	-	-	0.1	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=4V, I_C=0$	-	-	0.1	μA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	40	-	-	V
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	30	-	-	V
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6	-	-	V
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=2.5A, I_B=50mA$	-	110	165	mV
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C=2.5A, I_B=50mA$	-	0.82	1.2	V
DC Current Gain		h_{FE}	$V_{CE}=2V, I_C=500mA$	200	-	560	
Transition Frequency		f_T	$V_{CE}=10V, I_C=500mA$	-	290	-	MHz
Collector Output Capacitance		C_{ob}	$V_{CB}=10V, f=1MHz$	-	40	-	pF
Switching Time	Turn-On Time	t_{on}		-	30	-	nS
	Storage Time	t_{stg}		-	320	-	
	Fall Time	t_f		-	14	-	

KTC3543T

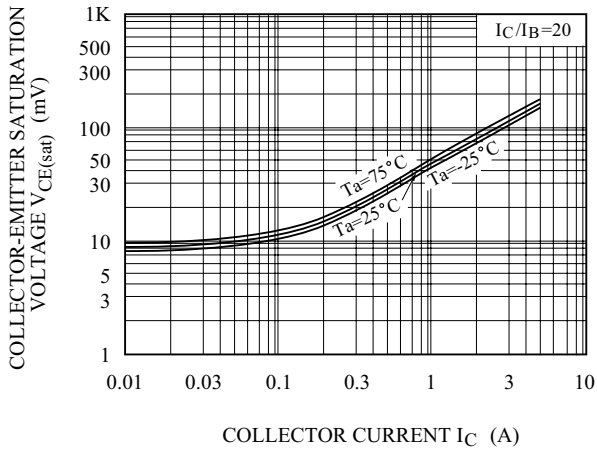
$I_C - V_{CE}$



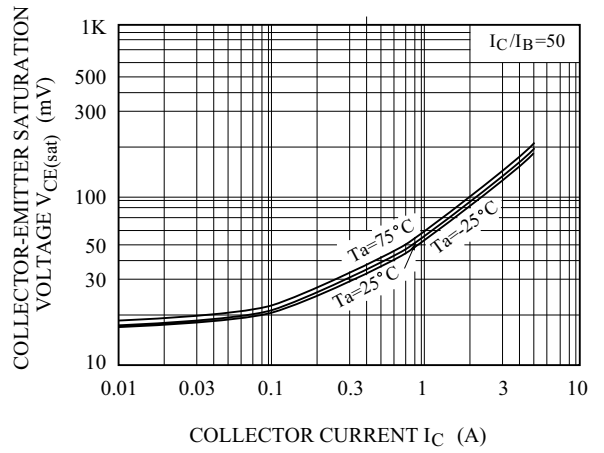
$h_{FE} - I_C$



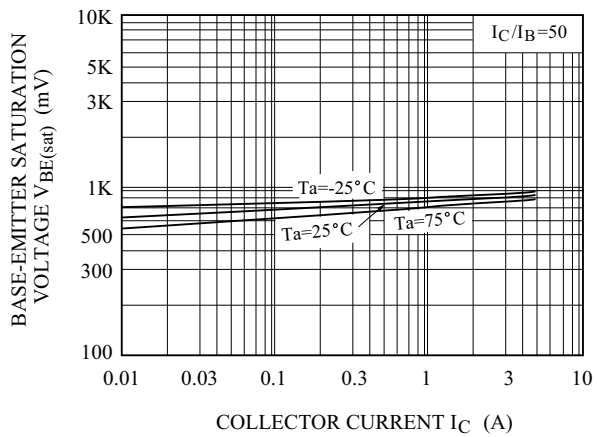
$V_{CE(sat)} - I_C$



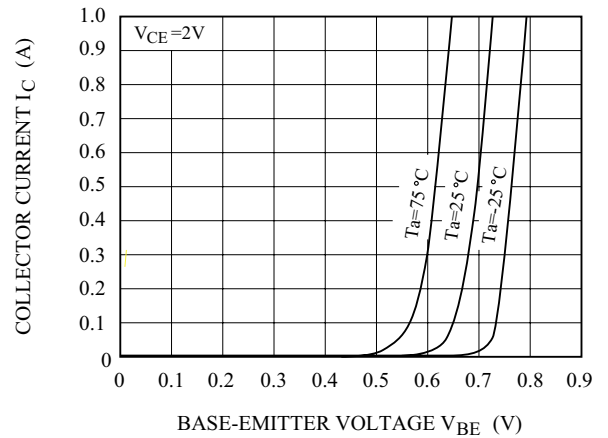
$V_{CE(sat)} - I_C$



$V_{BE(sat)} - I_C$

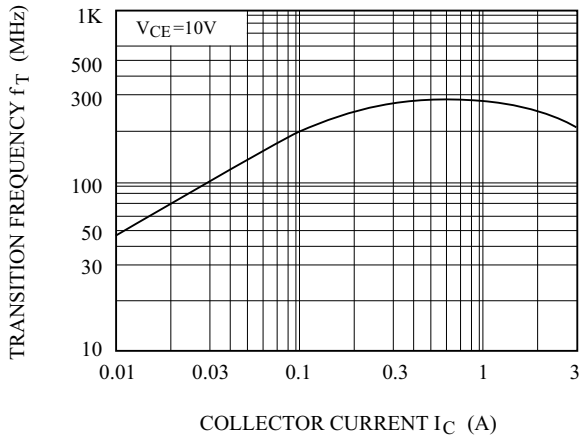


$I_C - V_{BE}$

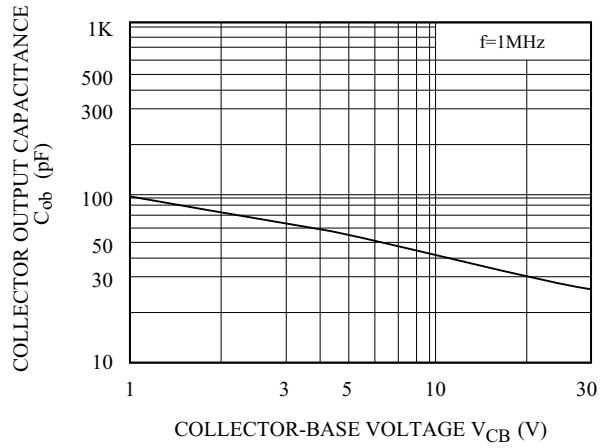


KTC3543T

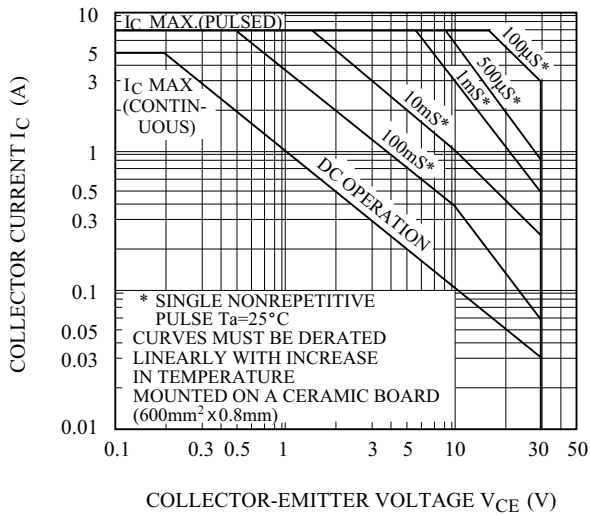
$f_T - I_C$



$C_{ob} - V_{CB}$



SAFE OPERATING AREA



$P_c - T_a$

