

RELAY DRIVERS, LAMP DRIVERS,
MOTOR DRIVERS 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 Disipation.
- Complementary to KTA1551T.

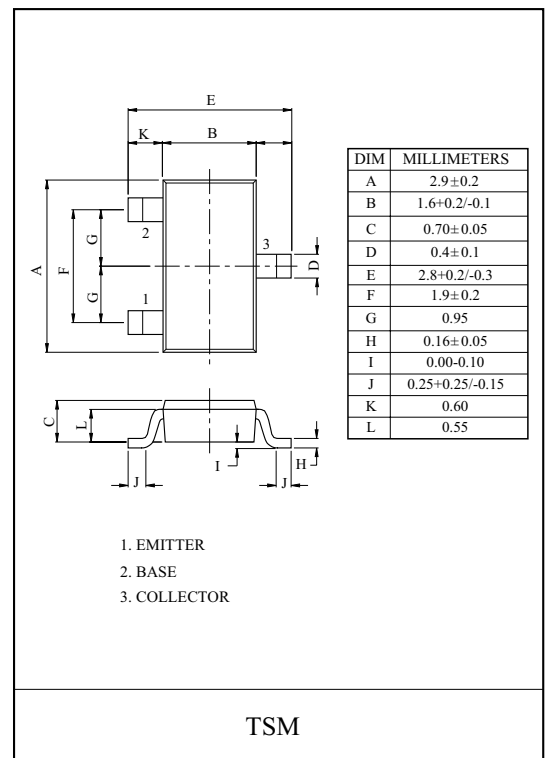
MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	80	V
Collector-Emitter Voltage		V_{CES}	80	V
		V_{CEO}	50	
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	DC	I_C	1.0	A
	Pulse	I_{CP}	3	
Base Current		I_B	200	mA
Collector Power Dissipation		P_C^*	0.9	W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55 ~ 150	°C

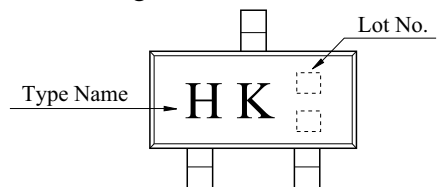
* Package mounted on a ceramic board (600mm² × 0.8mm)

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=40V, I_E=0$	-	-	0.1	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=4V, I_C=0$	-	-	0.1	μA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	80	-	-	V
Collector-Emitter Breakdown Voltage		$V_{(BR)CES}$	$I_C=100\mu A, V_{BE}=0$	80	-	-	V
		$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	50	-	-	V
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5	-	-	V
Collector-Emitter Saturation Voltage		$V_{CE(sat)1}$	$I_C=500mA, I_B=10mA$	-	130	190	mV
		$V_{CE(sat)2}$	$I_C=300mA, I_B=6mA$	-	90	135	mV
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C=500mA, I_B=10mA$	-	0.81	1.2	V
DC Current Gain		h_{FE}	$V_{CE}=2V, I_C=100mA$	200	-	560	
Transition Frequency		f_T	$V_{CE}=10V, I_C=300mA$	-	420	-	MHz
Collector Output Capacitance		C_{ob}	$V_{CB}=10V, f=1MHz$	-	6	-	pF
Switching Time	Turn-On Time	t_{on}		-	35	-	nS
	Storage Time	t_{stg}		-	330	-	
	Fall Time	t_f		-	40	-	

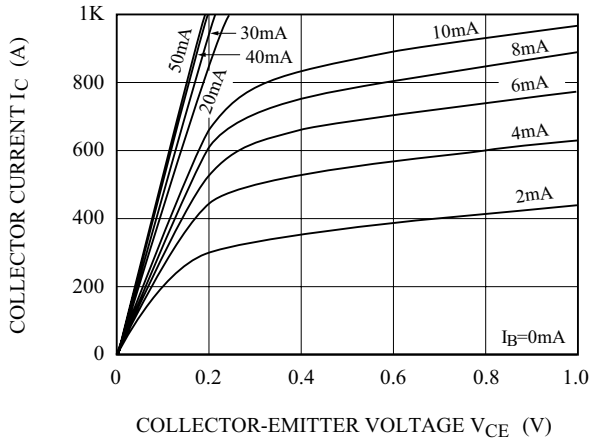


Marking

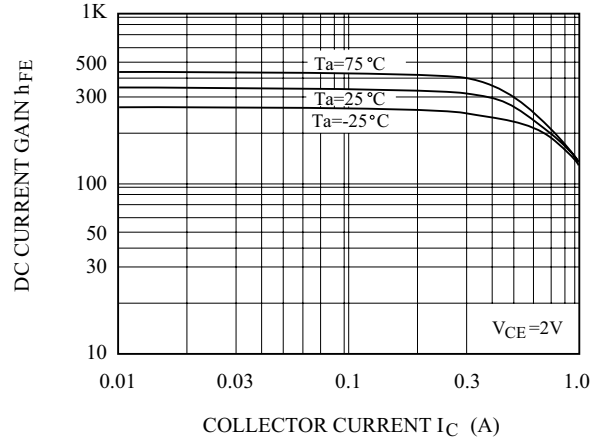


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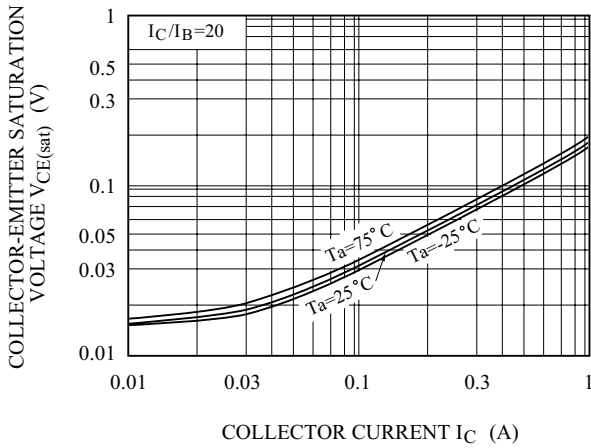
$I_C - V_{CE}$



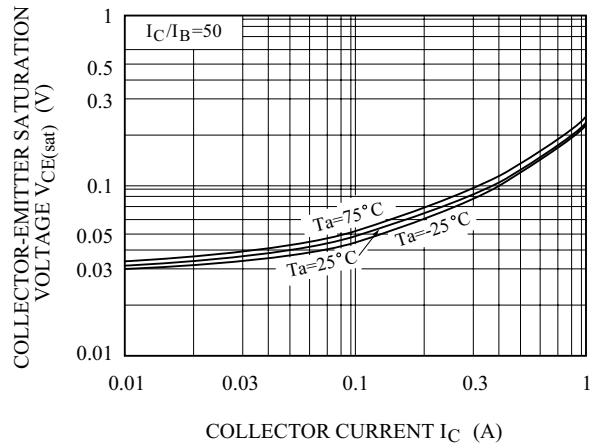
$h_{FE} - I_C$



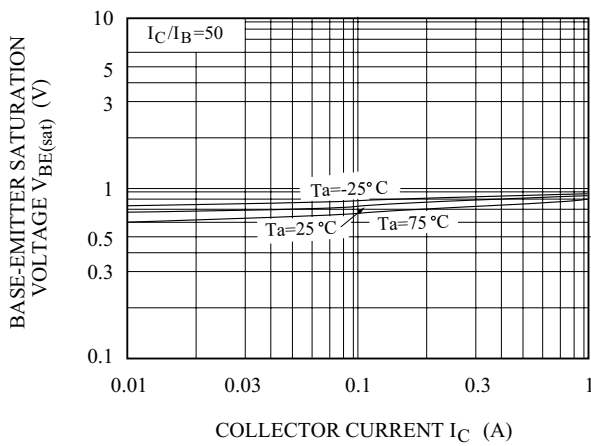
$V_{CE(sat)} - I_C$



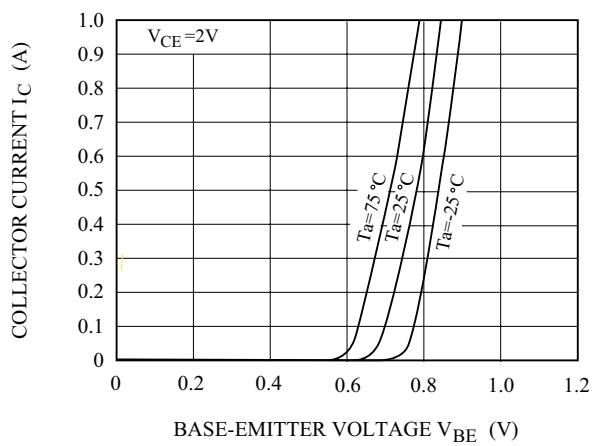
$V_{CE(sat)} - I_C$



$V_{BE(sat)} - I_C$

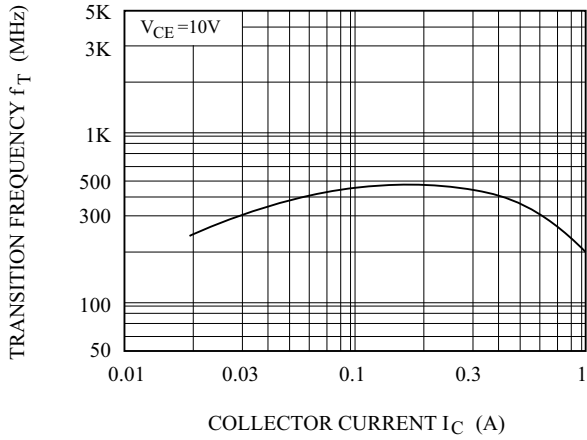


$I_C - V_{BE}$

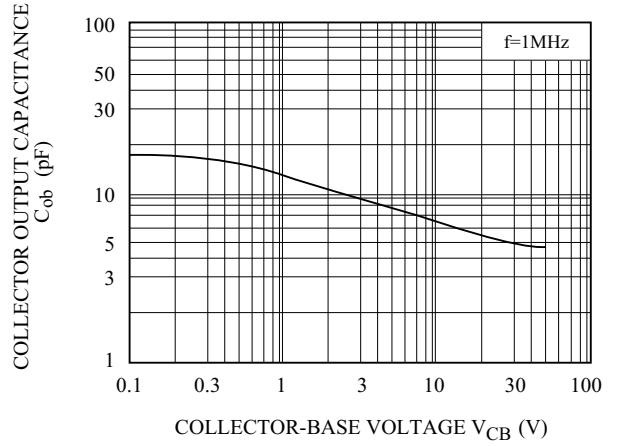


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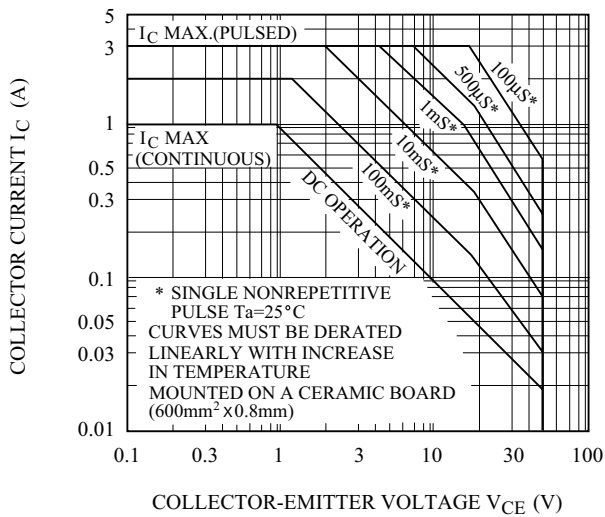
$f_T - I_C$



$C_{ob} - V_{CB}$



SAFE OPERATING AREA



$P_c - T_a$

