

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

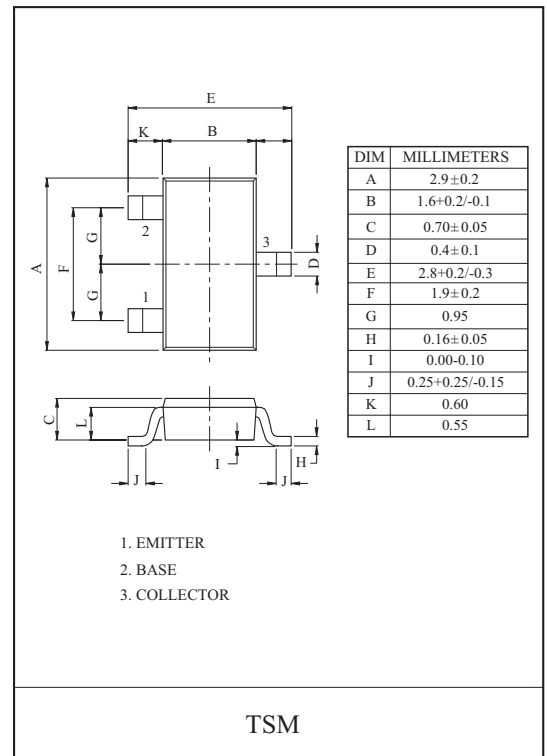
FEATURES

- 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.
- Suffix U : Qualified to AEC-Q101
ex) KTC3542T-RTK/HU

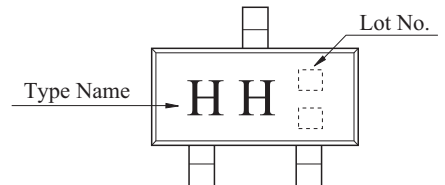
MAXIMUM RATING (Ta=25 °C)

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	
Storage Temperature Range		T_{stg}	-55 ~ 150	

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



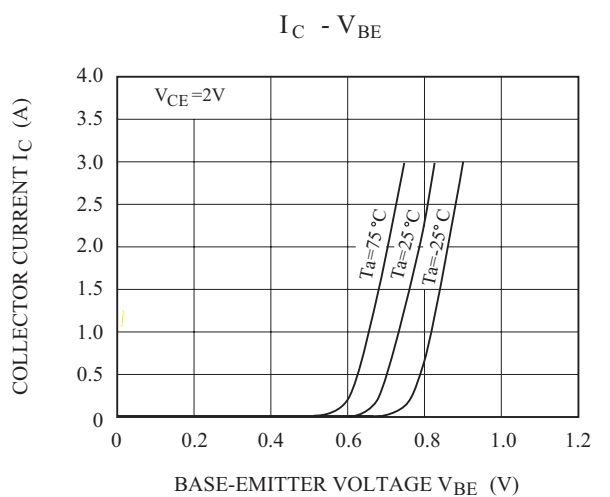
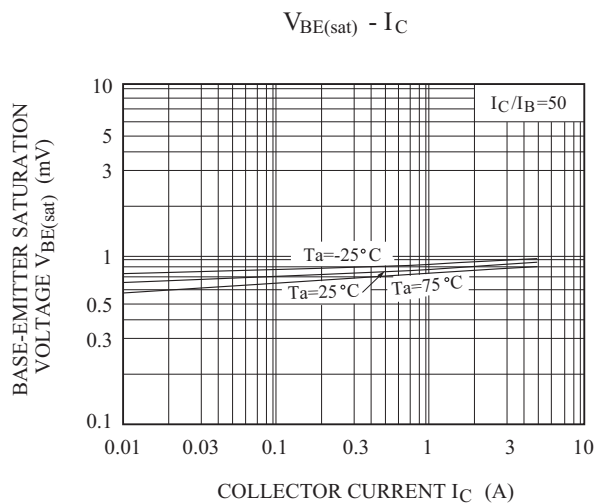
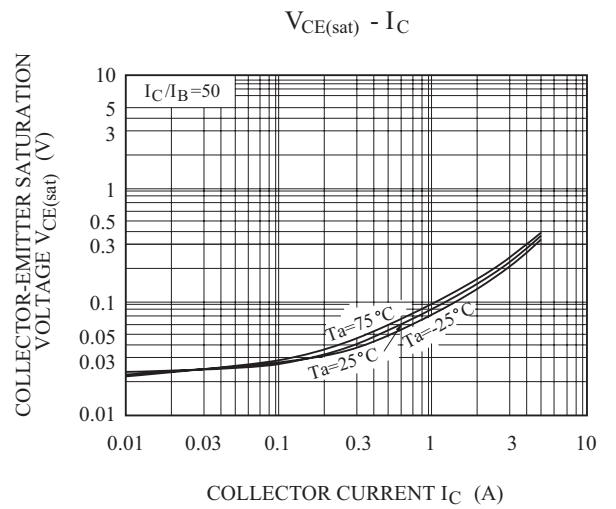
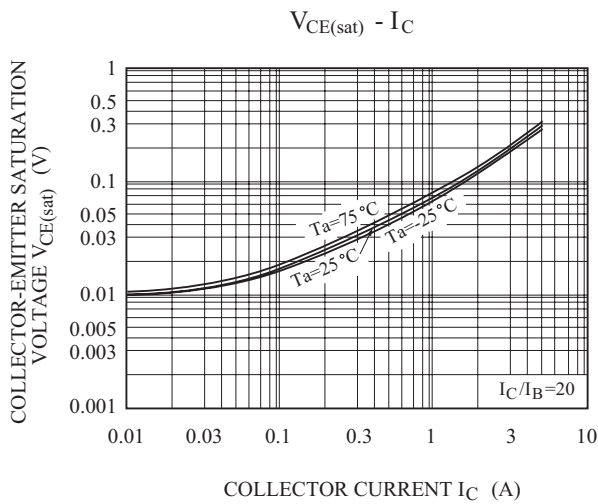
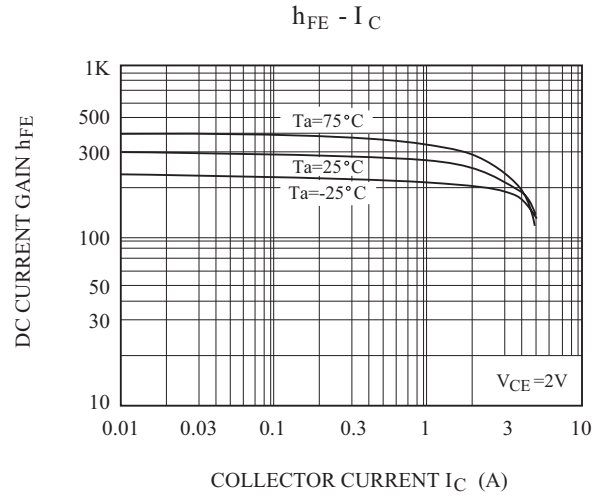
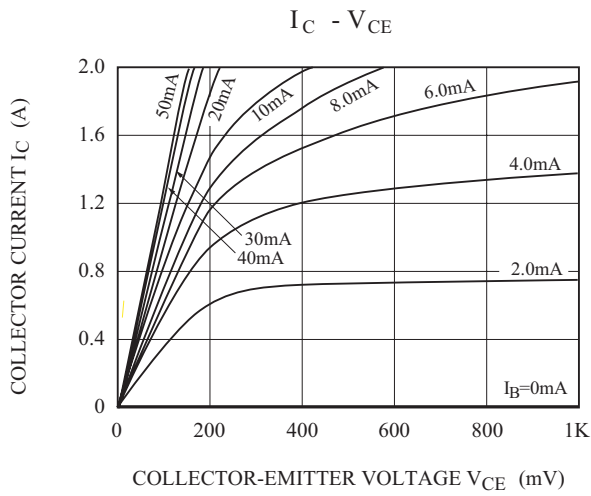
Marking



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		$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	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	-	

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