

LOW COLLECTOR SATURATION VOLTAGE
LARGE CURRENT

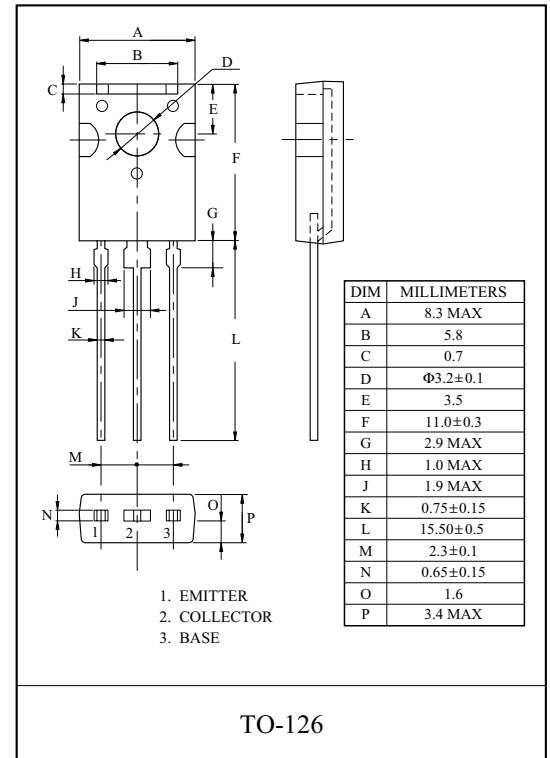
FEATURES

- High Power Dissipation : $P_C=1.5W(T_a=25^\circ C)$
- Complementary to KTD1691.

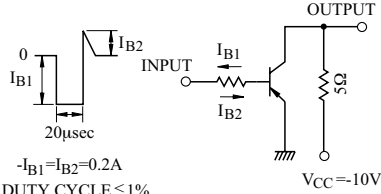
MAXIMUM RATING ($T_a=25^\circ C$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-60	V
Collector-Emitter Voltage		V_{CEO}	-60	V
Emitter-Base Voltage		V_{EBO}	-7	V
Collector Current	DC	I_C	-5	A
	Pulse *	I_{CP}	-8	
Base Current		I_B	-1	A
Collector Power Dissipation	$T_a=25^\circ C$	P_C	1.5	W
	$T_c=25^\circ C$		20	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55 ~ 150	$^\circ C$

* $PW \leq 10ms$, Duty Cycle $\leq 50\%$



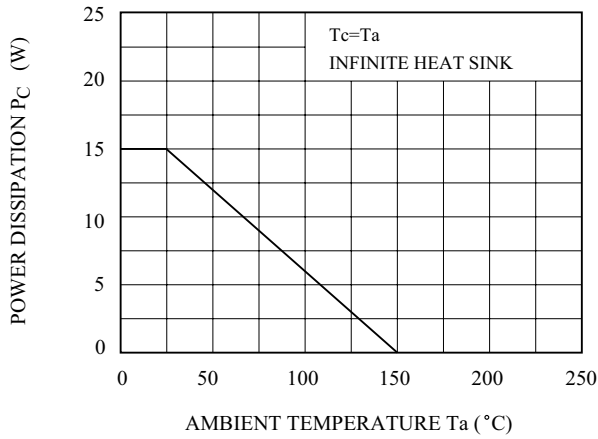
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I _{CBO}	V _{CB} =-50V, I _E =0	-	-	-10	μA
Emitter Cut-off Current		I _{EBO}	V _{EB} =-7V, I _C =0	-	-	-10	μA
DC Current Gain	*	h _{FE} 1	V _{CE} =-1V, I _C =-0.1A	60	-	-	
		h _{FE} 2 (Note)	V _{CE} =-1V, I _C =-2A	160	-	400	
		h _{FE} 3	V _{CE} =-2V, I _C =-5A	50	-	-	
Collector-Emitter Saturation Voltage *		V _{CE(sat)}	I _C =-2A, I _B =-0.2A	-	-0.14	-0.3	V
Base-Emitter Saturation Voltage *		V _{BE(sat)}	I _C =-2A, I _B =-0.2A	-	-0.9	-1.2	V
Switching Time	Turn On Time	t _{on}	 -I_{B1}=I_{B2}=0.2A DUTY CYCLE ≤ 1% V_{CC}=-10V	-	0.15	1	μS
	Storage Time	t _{stg}		-	0.78	2.5	
	Fall Time	t _f		-	0.18	1	

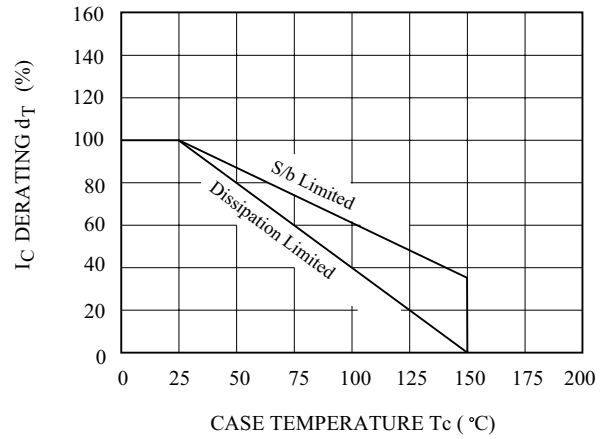
* Pulse test : $PW \leq 350\mu s$, Duty Cycle $\leq 2\%$ Pulse

Note) $h_{FE(2)}$ Classification : O:160 ~ 320, Y:200 ~ 400.

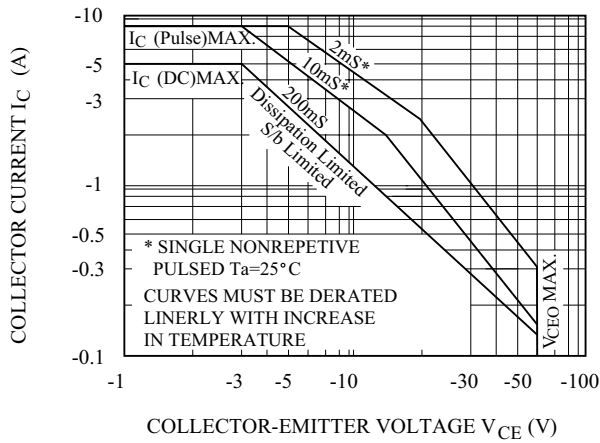
$P_c - T_a$



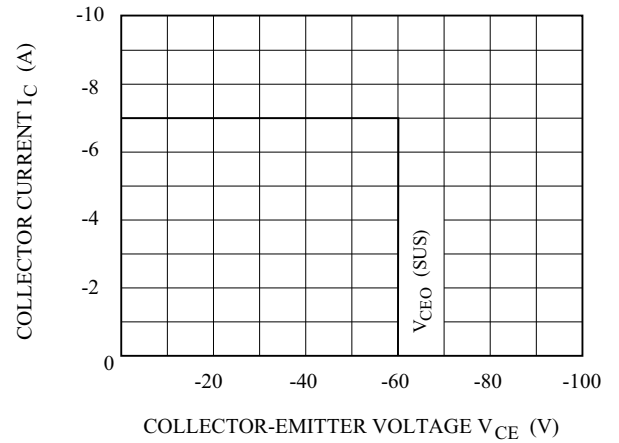
$d_T - T_c$



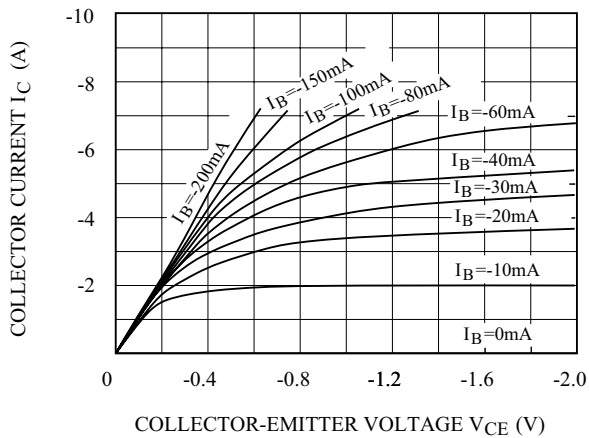
SAFE OPERATING AREA



REVERSE BIAS
SAFE OPERATING AREA



$I_c - V_{CE}$



$h_{FE} - I_c$

