

LOW COLLECTOR SATURATION VOLTAGE
LARGE CURRENT

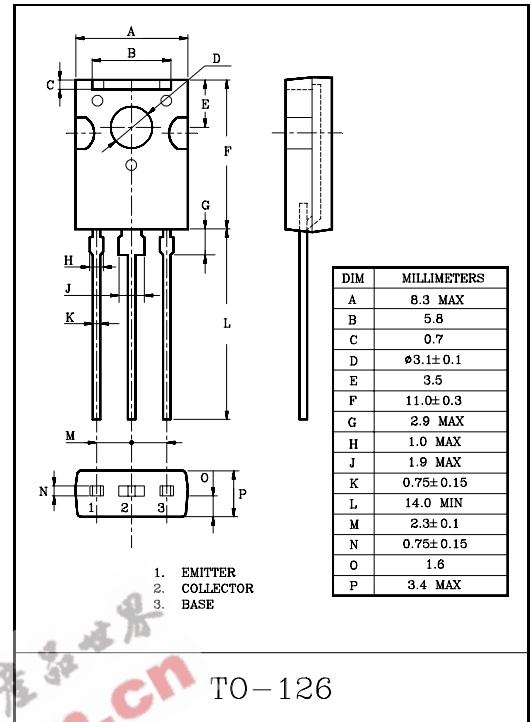
FEATURES

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

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

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 *		-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 ($T_a=25^\circ C$)

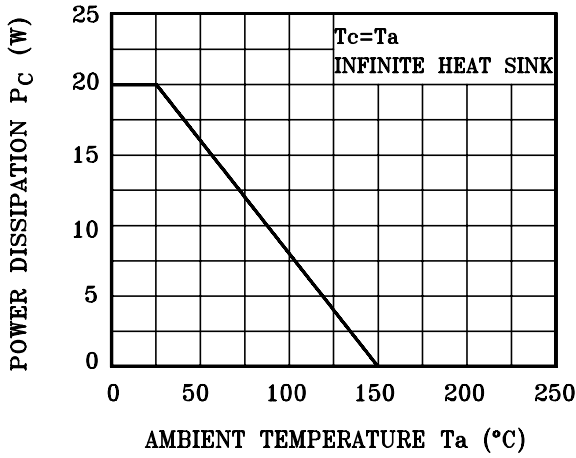
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=-50V, I_E=0$	-	-	-10	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=-7V, I_C=0$	-	-	-10	μA
DC Current Gain	*	$h_{FE} 1$	$V_{CE}=-1V, I_C=0.1A$	60	-	-	
		$h_{FE} 2(\text{Note})$	$V_{CE}=-1V, I_C=-2A$	100	-	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}		-	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

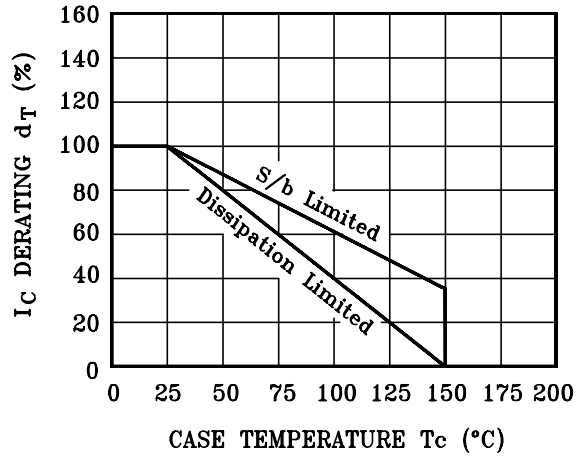
Note) $h_{FE}(2)$ Classification : R:100~200, O:160~320, Y:200~400.

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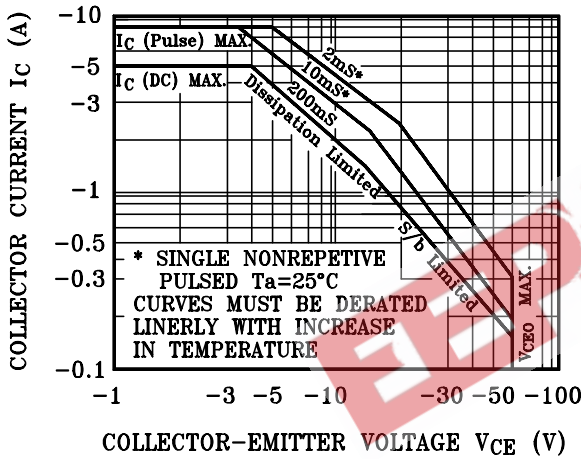
$P_c - T_a$



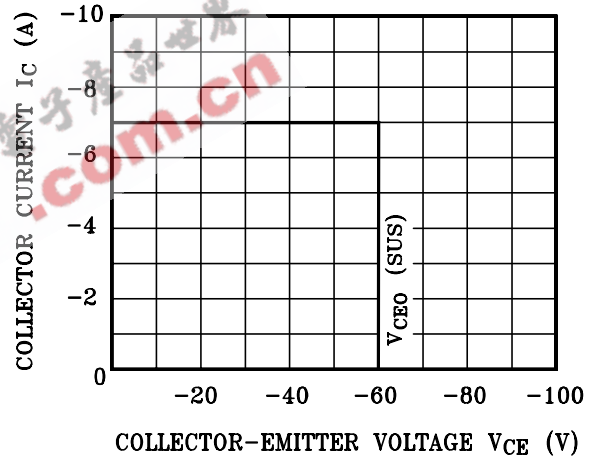
$d_T - T_c$



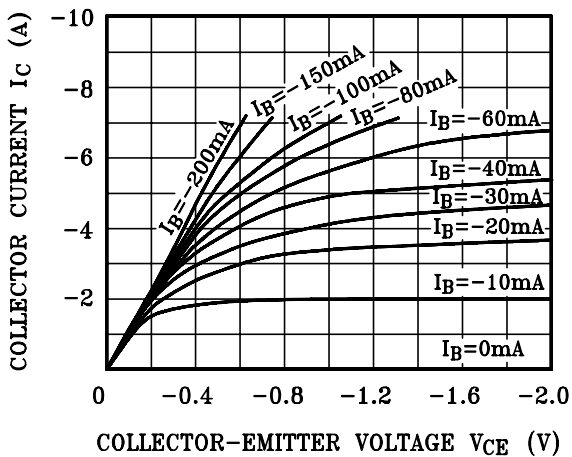
SAFE OPERATING AREA



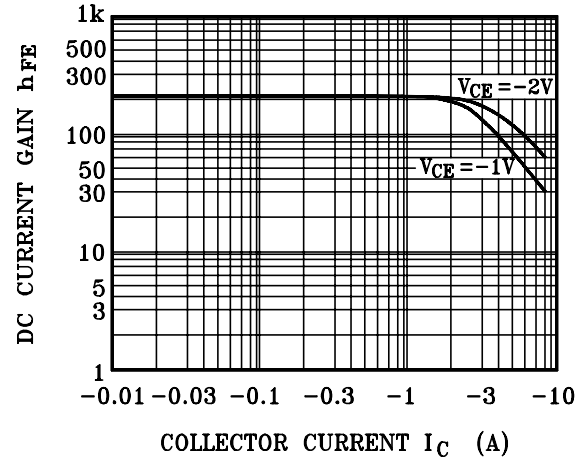
REVERSE BIAS SAFE OPERATING AREA



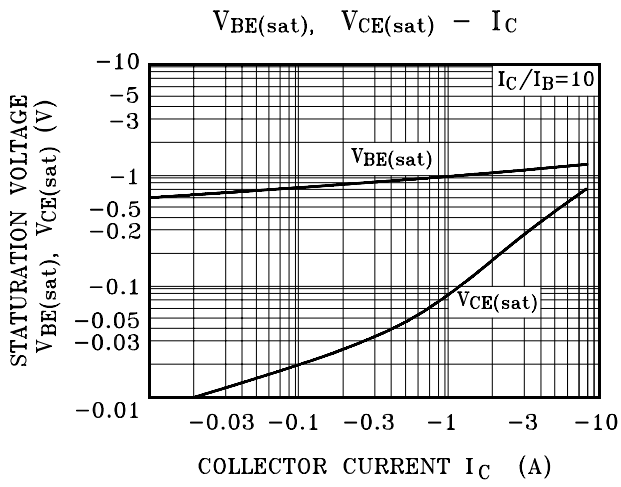
$I_c - V_{CE}$



$h_{FE} - I_c$



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