EPITAXIAL PLANAR PNP TRANSISTOR

LOW COLLECTOR SATURATION VOLTAGE LARGE CURRENT

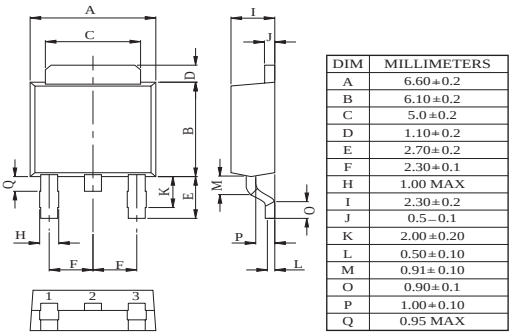
FEATURES

- High Power Dissipation : P_C =1.3W(Ta=25℃)

MAXIMUM RATING (Ta=25℃)

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	Ta=25℃	P_C	1.3	W
	Tc=25℃		15	
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55 ~ 150	℃

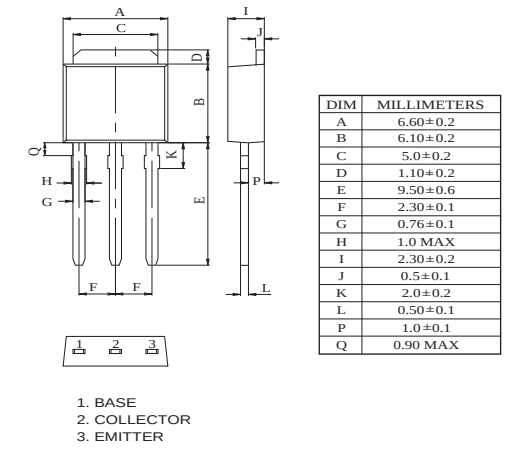
* PW≤10ms, Duty Cycle≤50%



DIM	MILLIMETERS
A	6.60±0.2
B	6.10±0.2
C	5.0±0.2
D	1.10±0.2
E	2.70±0.2
F	2.30±0.1
H	1.00 MAX
I	2.30±0.2
J	0.5~0.1
K	2.00±0.20
L	0.50±0.10
M	0.91±0.10
O	0.90±0.1
P	1.00±0.10
Q	0.95 MAX

1. BASE
2. COLLECTOR
3. EMITTER

TO-252(D-PAK)

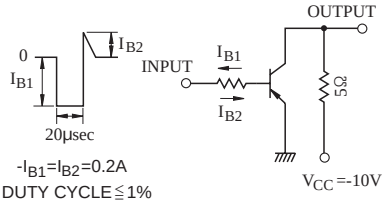


DIM	MILLIMETERS
A	6.60±0.2
B	6.10±0.2
C	5.0±0.2
D	1.10±0.2
E	9.50±0.6
F	2.30±0.1
G	0.76±0.1
H	1.0 MAX
I	2.30±0.2
J	0.5±0.1
K	2.0±0.2
L	0.50±0.1
P	1.0±0.1
Q	0.90 MAX

1. BASE
2. COLLECTOR
3. EMITTER

TO-251(I-PAK)

ELECTRICAL CHARACTERISTICS (Ta=25℃)

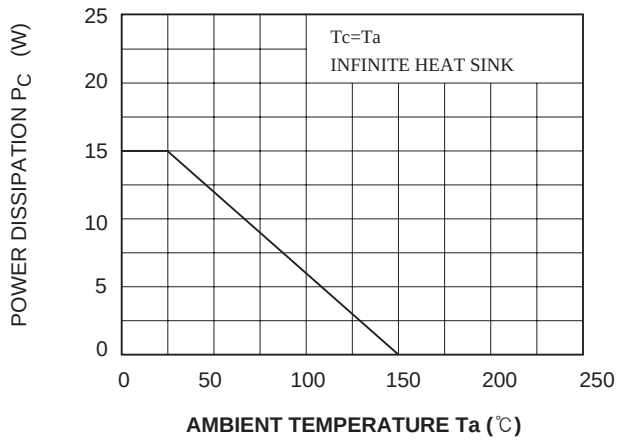
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=-50V, I_E=0	-	-	-10	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=-7V, I_C=0	-	-	-10	μA
DC Current Gain *		h_{FE}1	V_{CE}=-1V, I_C=-0.1A	60	-	-	
		h_{FE}2 (Note)	V_{CE}=-1V, I_C=-2A	160	-	400	
		h_{FE}3	V_{CE}=-2V, 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}		-	0.15	1	μS
	Storage Time	t_{stg}		-	0.78	2.5	
	Fall Time	t_f		-	0.18	1	

$-I_{B1}=I_{B2}$=0.2A
DUTY CYCLE≦1%

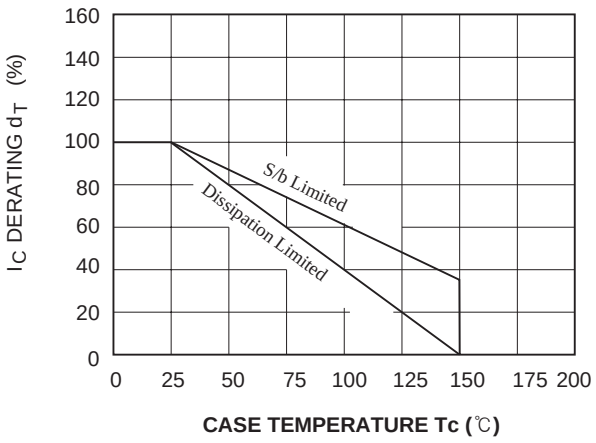
* Pulse test : PW≤ 350 μS, Duty Cycle≤ 2% Pulse

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

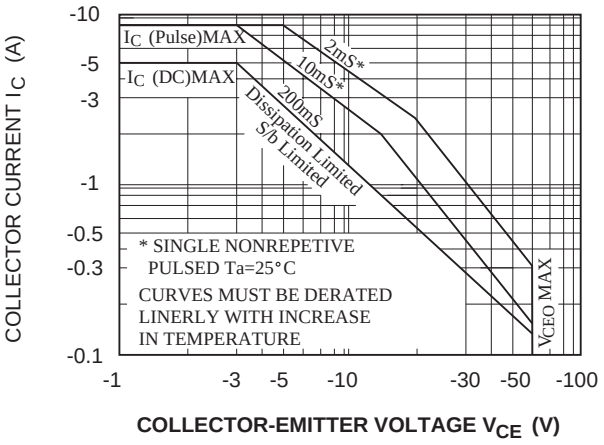
Pc - Ta



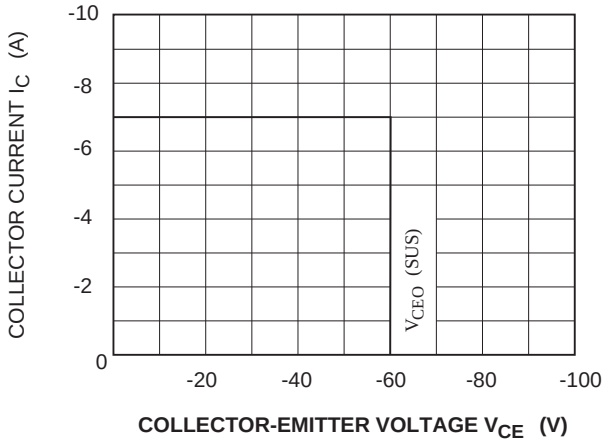
dT - TC



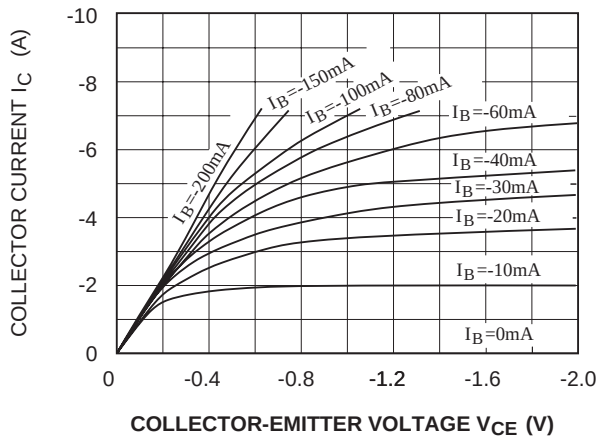
SAFE OPERATING AREA



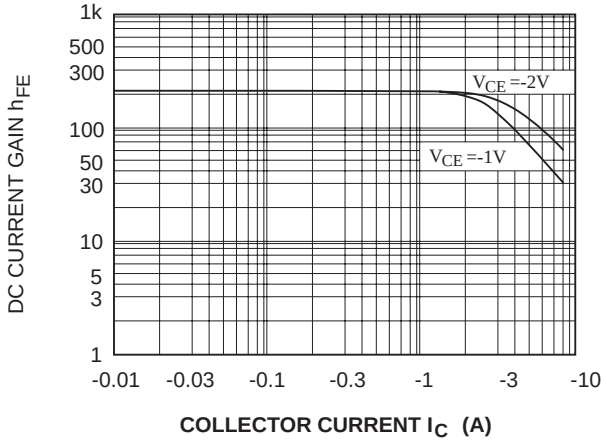
REVERSE BIAS SAFE OPERATING AREA

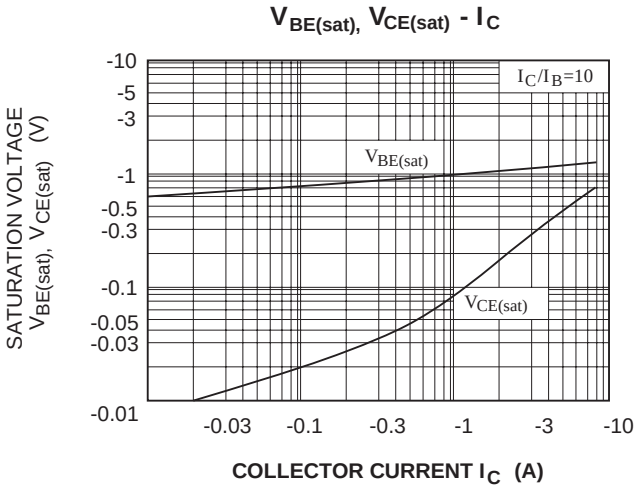


IC - VCE



hFE - IC




$V_{BE(sat)}$, $V_{CE(sat)}$ - I_C
SATURATION VOLTAGE $V_{BE(sat)}$, $V_{CE(sat)}$ (V)
-10
-5
-3
-1
-0.5
-0.3
-0.1
-0.05
-0.03
-0.01
I_C/I_B=10
$V_{BE(sat)}$
$V_{CE(sat)}$
-0.03
-0.1
-0.3
-1
-3
-10
COLLECTOR CURRENT I_C (A)