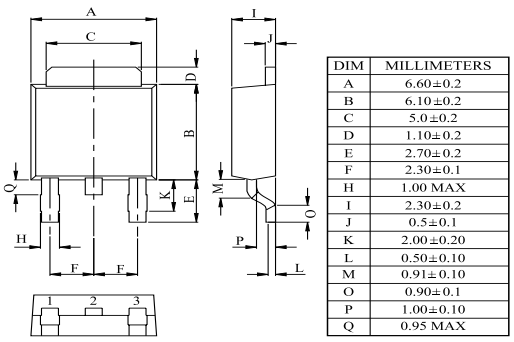
KTC3631D/L

TRIPLE DIFFUSED NPN TRANSISTOR

HIGH VOLTAGE SWITCHING.

FEATURES

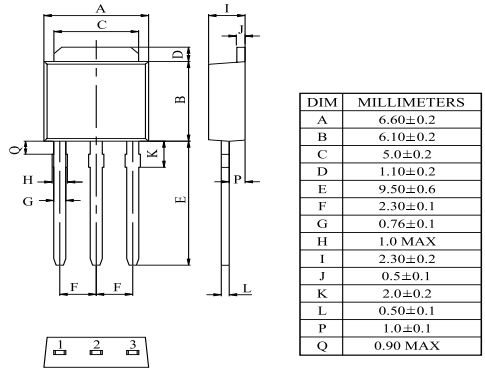
- Low Collector Saturation Voltage
  : $V_{CE(sat)}$=0.5V(Max.) at (I_C=0.5A).
- High Switching Speed Typically.
  : $t_f \cong 0.4$ μS at I_C=1A.
- Complementary to KTA1862D.
- Wide Safe Operating Area (SOA)



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

DPAK



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

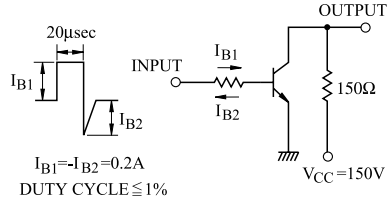
1. BASE
2. COLLECTOR
3. EMITTER

IPAK

MAXIMUM RATING (Ta=25℃)

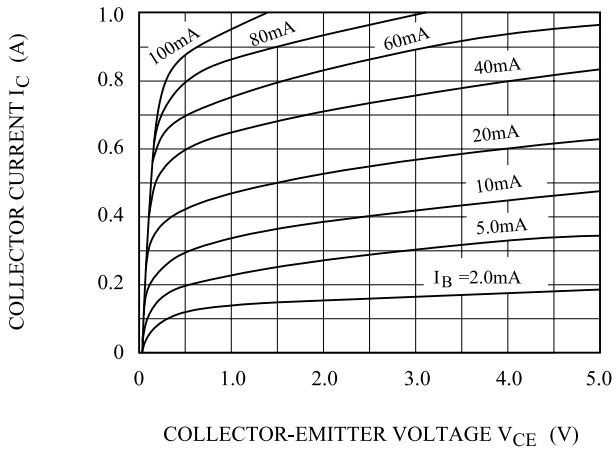
CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	400	V
Collector-Emitter Voltage		V_{CEO}	400	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	DC	I_C	2.0	A
	Pulse		4.0	
Collector Power Dissipation	Ta=25℃	P_C	1.0	W
	Tc=25℃		10	
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55 150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

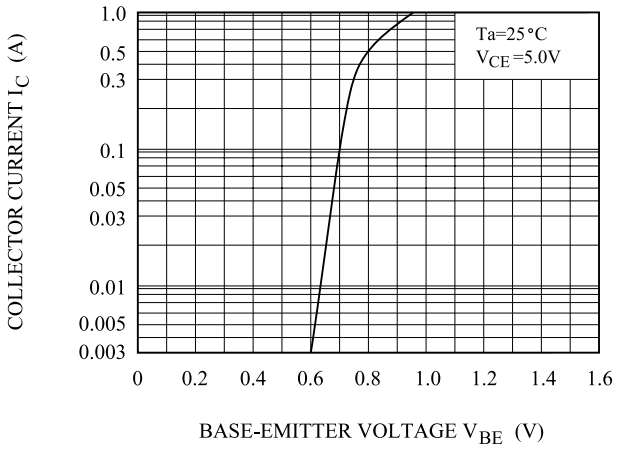
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=400V, I_E=0	-	-	1.0	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=5.0V, I_C=0	-	-	1.0	μA
DC Current Gain		h_{FE}(1) (Note)	V_{CE}=5.0V, I_C=100mA	56	100	180	
		h_{FE}(2)	V_{CE}=5.0V, I_C=500mA	6	-	-	
Collector Saturation Voltage		$V_{CE(sat)}$	I_C=500mA, I_B=100mA	-	0.3	0.5	V
Base Saturation Voltage		$V_{BE(sat)}$	I_C=500mA, I_B=100mA	-	-	1.2	V
Transition Frequency		f_T	V_{CE}=10V, I_E=-100mA, f=5MHz	-	18	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	30	-	pF
Switching Time	Turn-on Time	t_{on}		-	0.2	-	μS
	Storage Time	t_{stg}		-	1.8	-	
	Fall Time	t_f		-	0.4	-	

Note : h_{FE}(1) Classification O:56 120 , Y:82 180

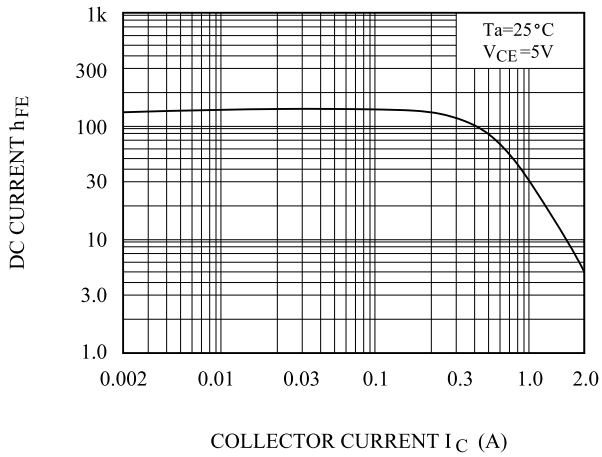
I_C - V_{CE}



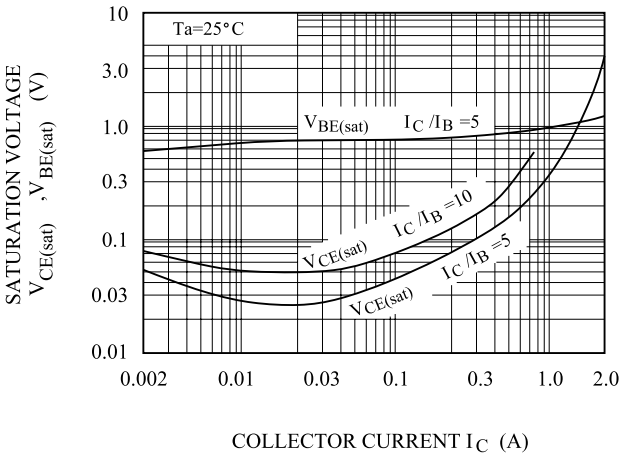
I_C - V_{BE}



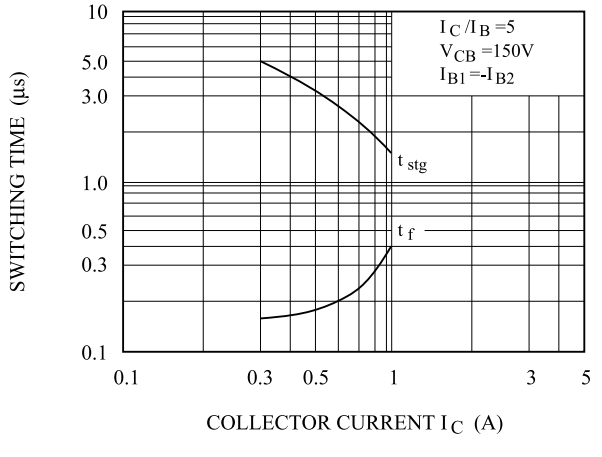
h_{FE} - I_C



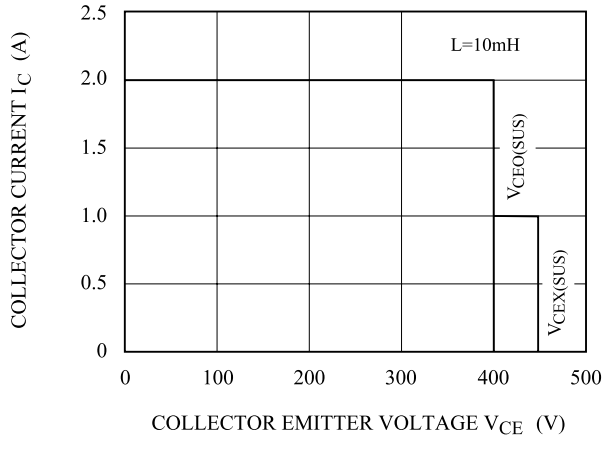
$V_{CE(sat)}$, $V_{BE(sat)}$ - I_C



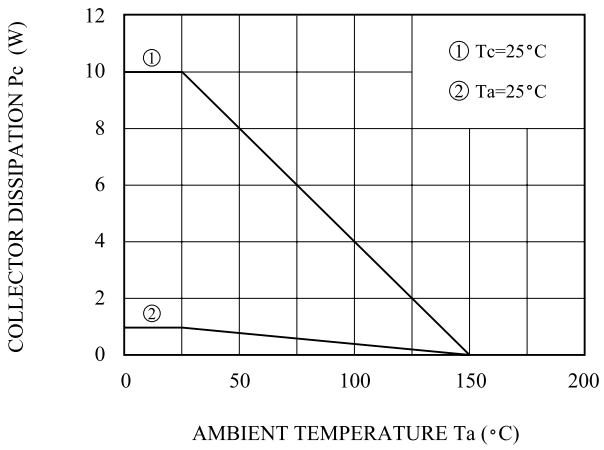
SWITCHING CHARACTERISTIC



REVERSE BIAS SAFE OPERATING AREA



Pc - Ta



SAFE OPERATING AREA