

KEC

SEMICONDUCTOR
TECHNICAL DATA

KTC3631D/L

TRIPLE DIFFUSED NPN TRANSISTOR

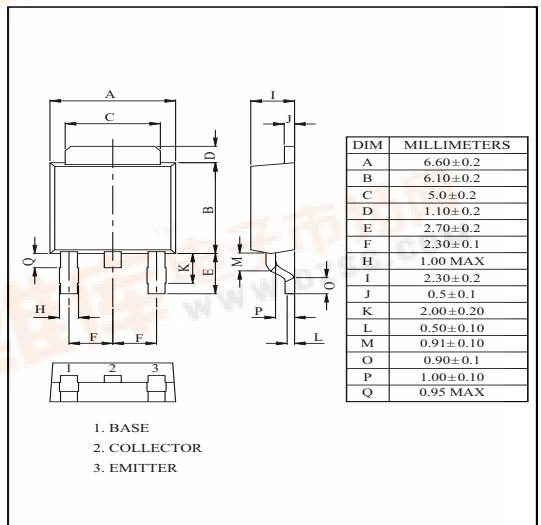
HIGH VOLTAGE SWITCHING.

FEATURES

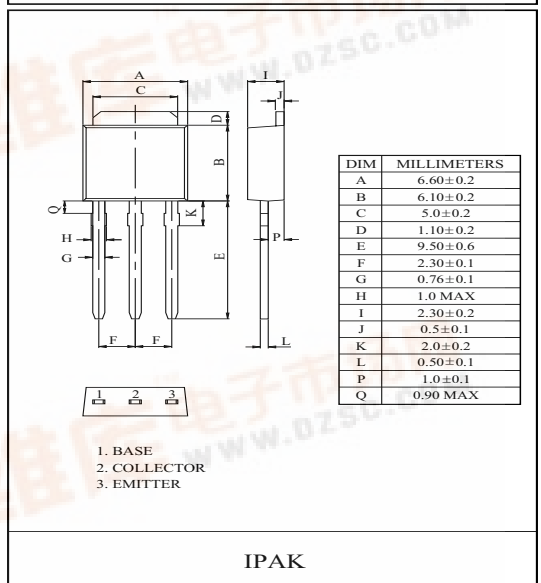
- Low Collector Saturation Voltage
: $V_{CE(sat)}=0.5V(\text{Max.})$ at $I_C=0.5A$.
- High Switching Speed Typically.
: $t_f \approx 0.4\mu s$ at $I_C=1A$.
- Complementary to KTA1862D.
- Wide Safe Operating Area (SOA)

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

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	$T_a=25^\circ C$	P_C	1.0	W
	$T_c=25^\circ C$		10	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55 ~ 150	$^\circ C$

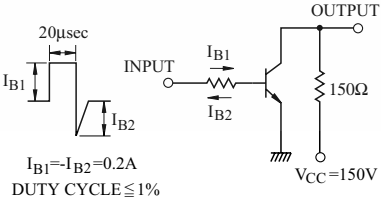


DPAK



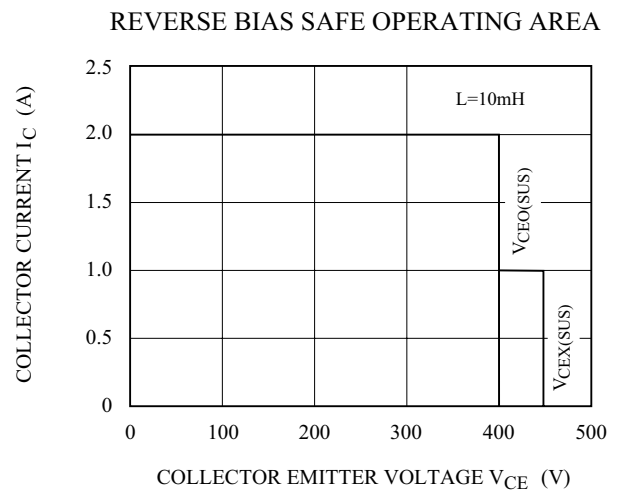
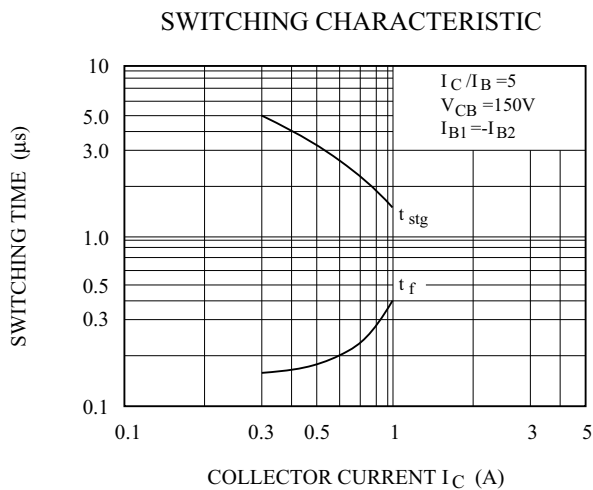
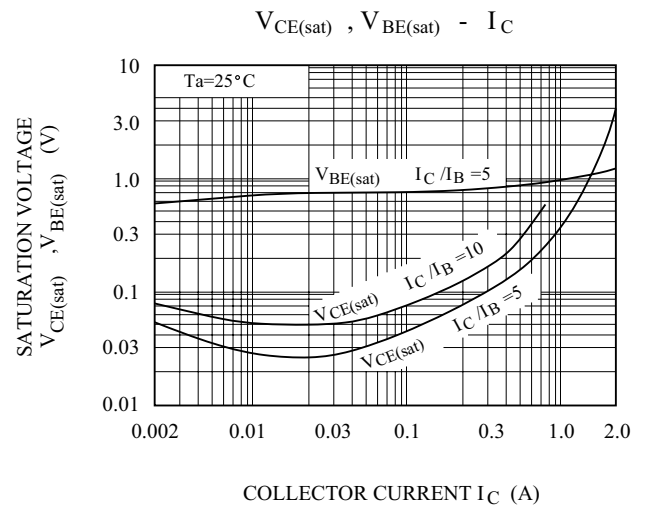
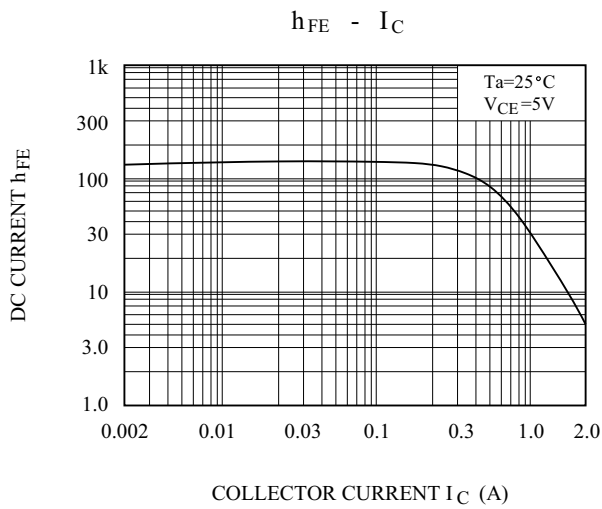
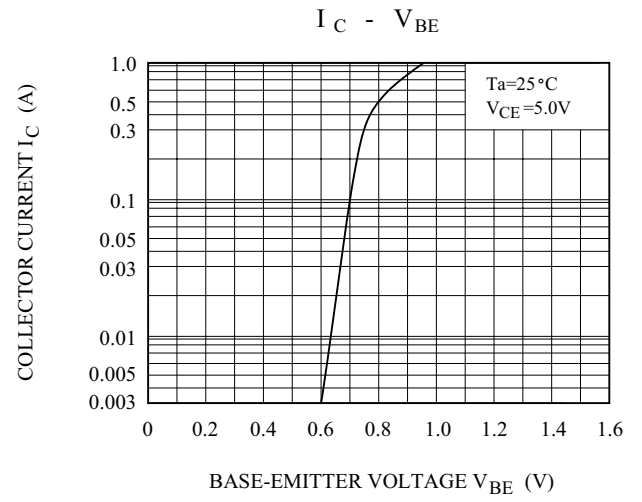
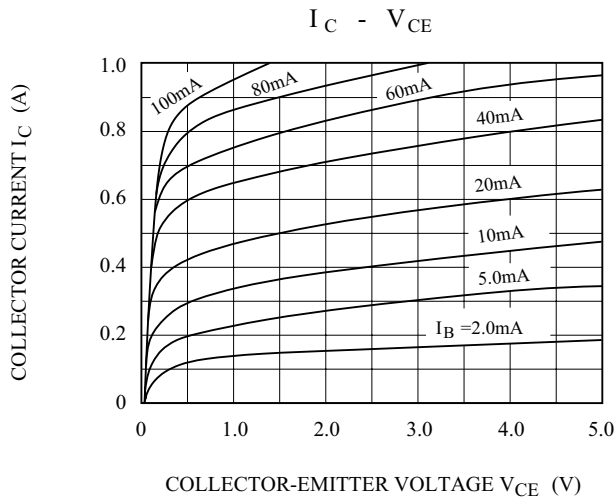
IPAK

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

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

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