

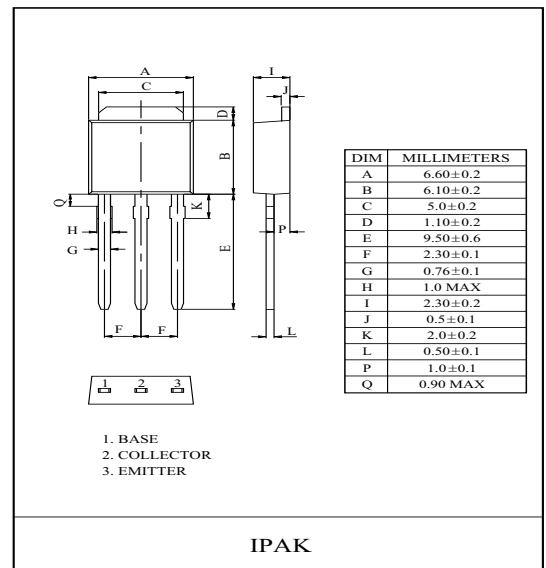
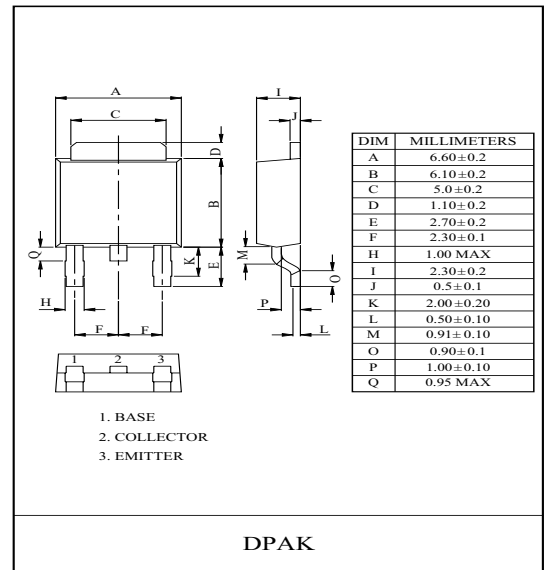
HIGH VOLTAGE SWITCHING.  
POWER SUPPLY SWITCHING FOR TELEPHONES.

### FEATURES

- High Breakdown Voltage, Typically :  $BV_{CEO} = -400V$ .
- Low Collector Saturation Voltage.  
:  $V_{CE(sat)} = -0.5V(\text{Max.})$  at  $I_C = 0.5A$
- High Switching Speed, Typically  
:  $t_f = \cong 0.4\mu S$  at  $I_C = -1A$
- Wide Safe Operating Area (SOA)

### MAXIMUM RATING (Ta=25°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	$I_{CP}$	-4.0	
Collector Power Dissipation	Ta=25°C	$P_C$	1.0	W
	Tc=25°C		10	
Junction Temperature		$T_j$	150	°C
Storage Temperature Range		$T_{stg}$	-55 ~ 150	°C

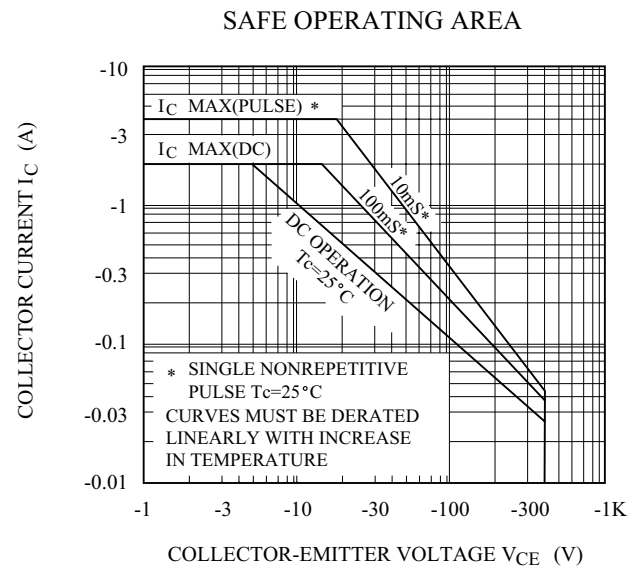
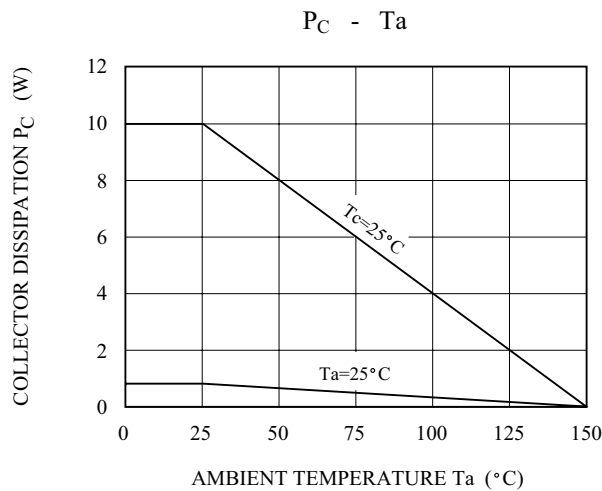
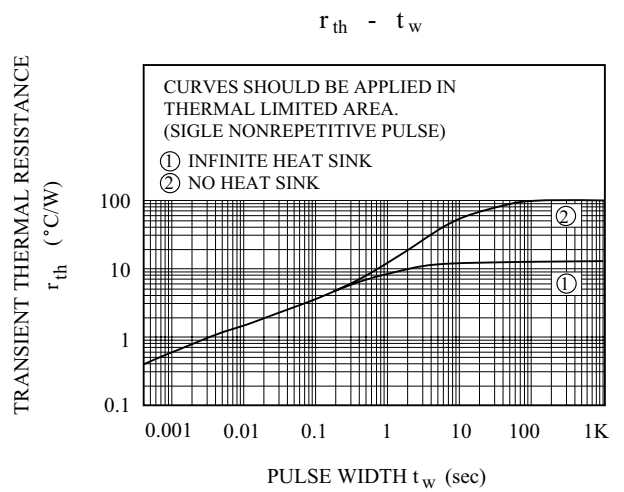
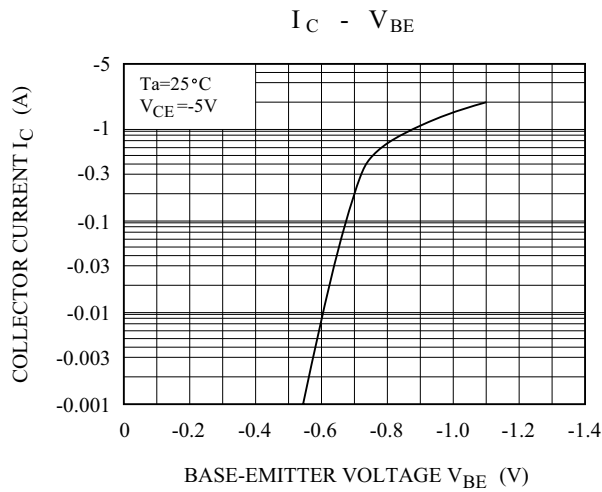
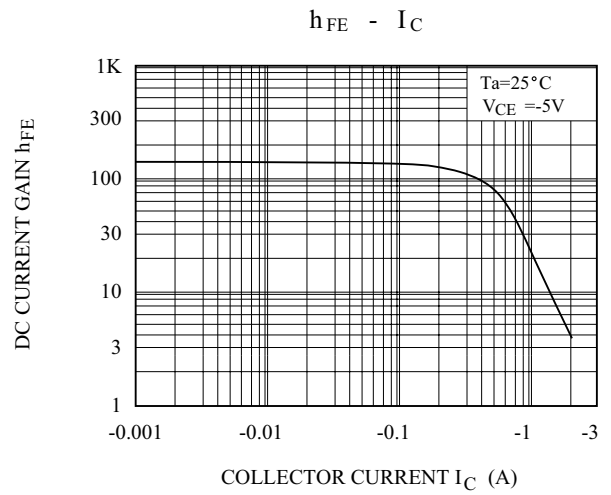
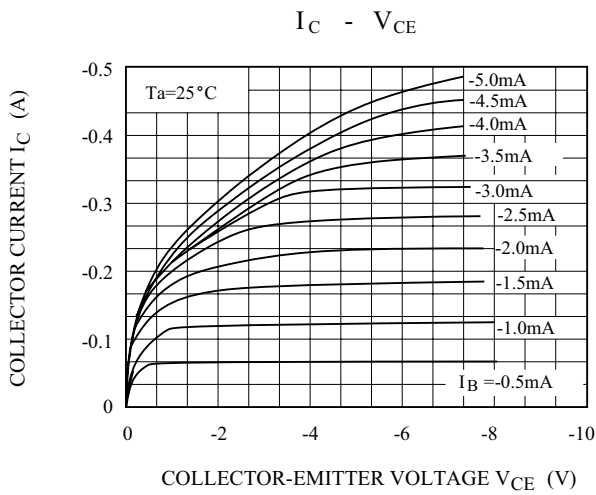


### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut of Current		$I_{CBO}$	$V_{CB} = -400V$	-	-	-1.0	$\mu A$
Emitter Cut of Current		$I_{EBO}$	$V_{EB} = -5V$	-	-	-1.0	$\mu A$
Collector-Base Breakdown Voltage		$BV_{CBO}$	$I_C = -50\mu A$	-400	-	-	V
Collector-Emitter Breakdown Voltage		$BV_{CEO}$	$I_C = -1mA$	-400	-	-	V
Emitter-Base Breakdown Voltage		$BV_{EBO}$	$I_E = -50\mu A$	-7	-	-	V
DC Current Gain	$h_{FE}(1)$ Note		$V_{CE} = -5V, I_C = -100mA$	56	100	180	
	$h_{FE}(2)$		$V_{CE} = -5V, I_C = -500mA$	6	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = -500mA, I_B = -100mA$	-	-0.3	-0.5	V
Base-Emitter 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		$C_{ob}$	$V_{CB} = -10V, I_E = 0mA, f = 1MHz$	-	30	-	pF
Switching Time	Turn-on Time	$t_{on}$	<p><math>-I_{B1} = I_{B2} = 0.2A</math> DUTY CYCLE <math>\leq 1\%</math></p>	-	0.2	-	$\mu S$
	Turn-off Time	$t_{stg}$		-	-1.8	-	
	Storage Time	$t_f$		-	0.4	-	

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

# KTA1862D/L



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