

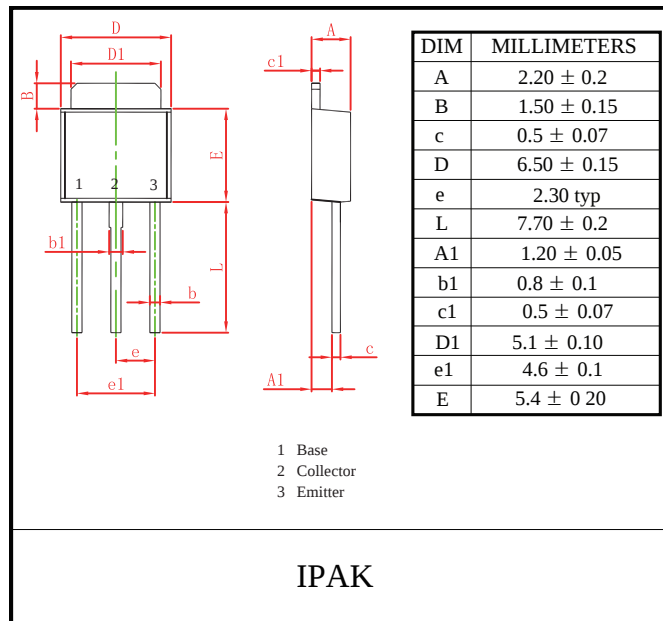
SWITCHING REGULATOR APPLICATION.
HIGH VOLTAGE AND HIGH SPEED
SWITCHING APPLICATION.

FEATURES

- Excellent Switching Times
: $t_{on}=1.1\mu S(\text{Max.})$, $t_f=0.5\mu S(\text{Max.})$, at $I_C=1.0A$
- High Collector Voltage : $V_{CBO}=700V$.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	700	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	9	V
Collector Current	DC	I_C	A
	Pulse	I_{CP}	
Collector Power Dissipation	I_B	0.75	A
Collector Power Dissipation	P_C	1.5	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 1mA, I_E = 0$	700			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 1mA, I_C = 0$	9			V
Collector cut-off current	I_{CBO}	$V_{CB} = 700V, I_E = 0$			1	mA
Collector cut-off current	I_{CEO}	$V_{CE} = 400V, I_B = 0$			0.5	mA
Emitter cut-off current	I_{EBO}	$V_{EB} = 9V, I_C = 0$			1	mA
DC current gain	$h_{FE(1)}$	$V_{CE} = 5V, I_C = 0.5A$	8		40	
	$h_{FE(2)}$	$V_{CE} = 5V, I_C = 1.5A$	5			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 1A, I_B = 250mA$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 1A, I_B = 250mA$			1.2	V
Base-emitter voltage	V_{BE}	$I_E = 2A$			3	V
Transition frequency	f_T	$V_{CE} = 10V, I_C = 100mA$ $f = 1MHz$	5			MHz
Fall time	t_f	$I_C = 1A, I_{B1} = -I_{B2} = 0.2A$ $V_{CC} = 100V$			0.5	μs
Storage time	t_s	$I_C = 250mA$	2		4	μs

CLASSIFICATION OF $h_{FE(1)}$

Rank							
Range	8- 10	10- 15	15- 20	20- 25	25- 30	30- 35	35- 40

