

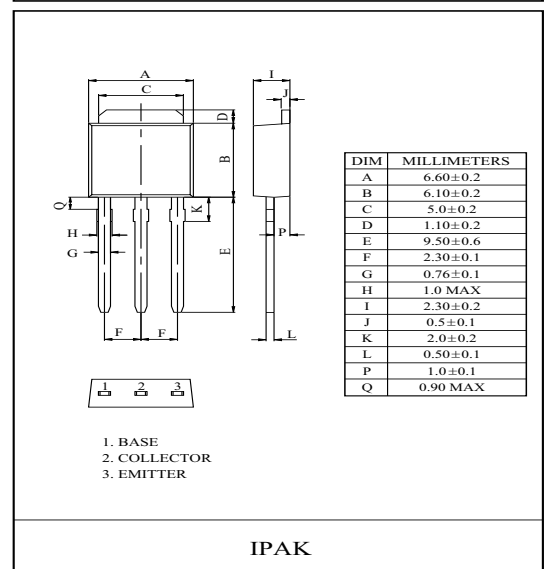
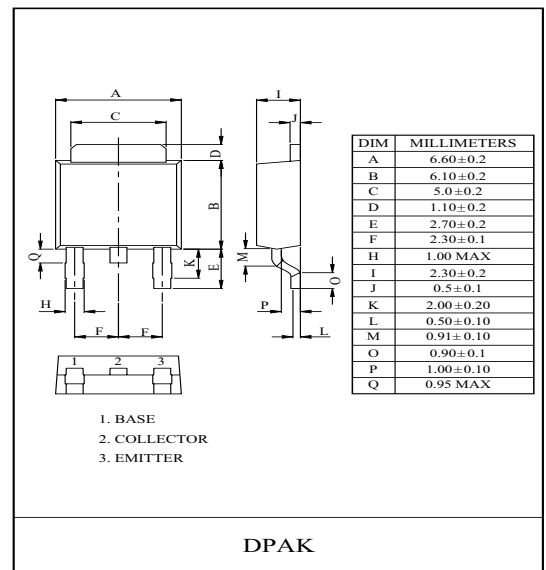
HIGH VOLTAGE SWITCHING.
POWER SUPPLY SWITCHING FOR TELEPHONES.

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	1.3	W
	Tc=25°C		10	
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55 ~ 150	°C



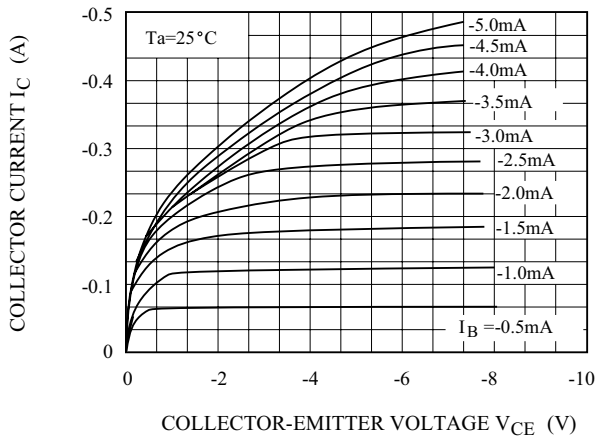
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut of Current		I_{CBO}	$V_{CB} = -400V$	-	-	-1.0	μA
Emitter Cut of Current		I_{EBO}	$V_{EB} = -5V$	-	-	-1.0	μA
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>$-I_{B1} = I_{B2} = 0.2A$ DUTY CYCLE $\leq 1\%$</p>	-	0.2	-	μS
	Turn-off Time	t_{stg}		-	-1.8	-	
	Storage Time	t_f		-	0.4	-	

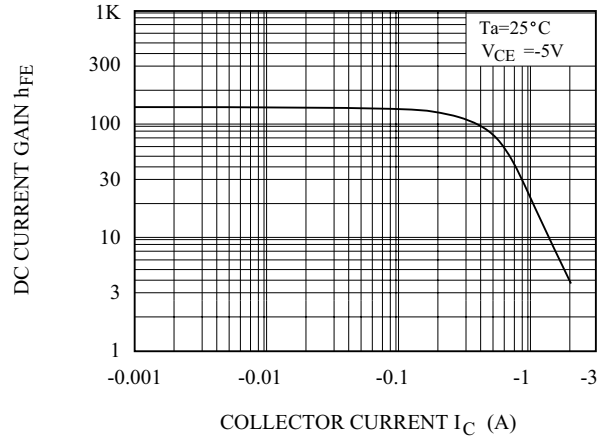
Note : $h_{FE(1)}$ Classification O:56~120, Y:82~180.

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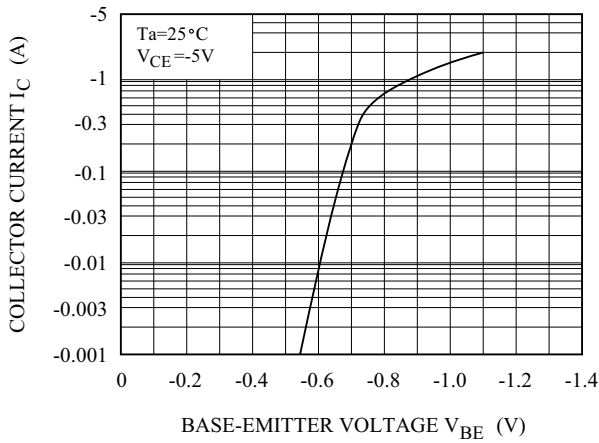
$I_C - V_{CE}$



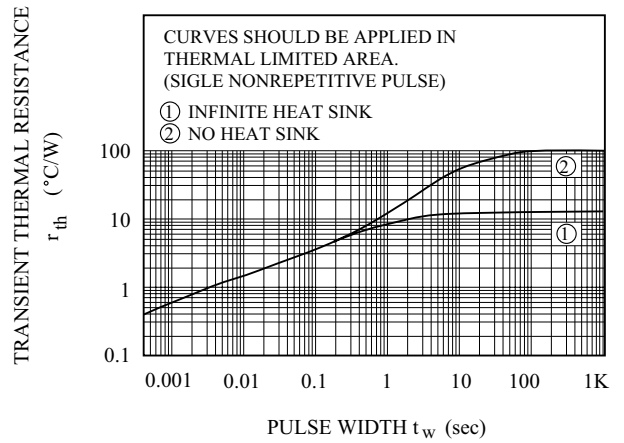
$h_{FE} - I_C$



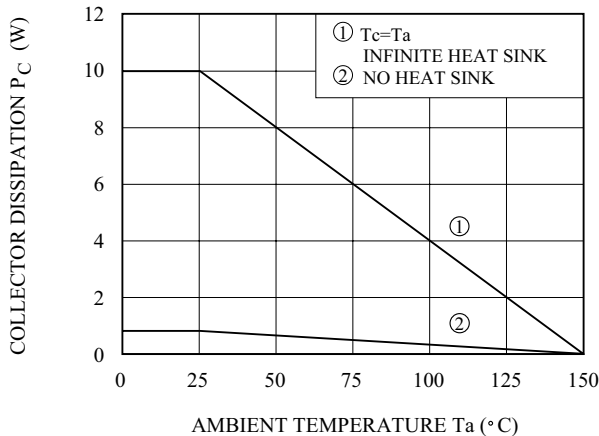
$I_C - V_{BE}$



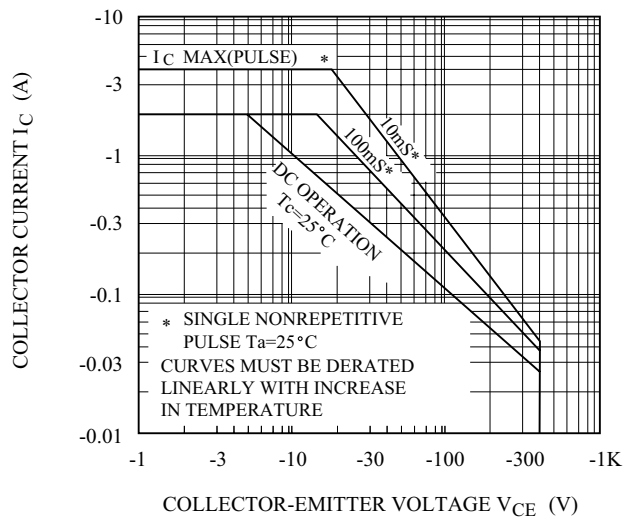
$r_{th} - t_w$



$P_C - T_a$



SAFE OPERATING AREA



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