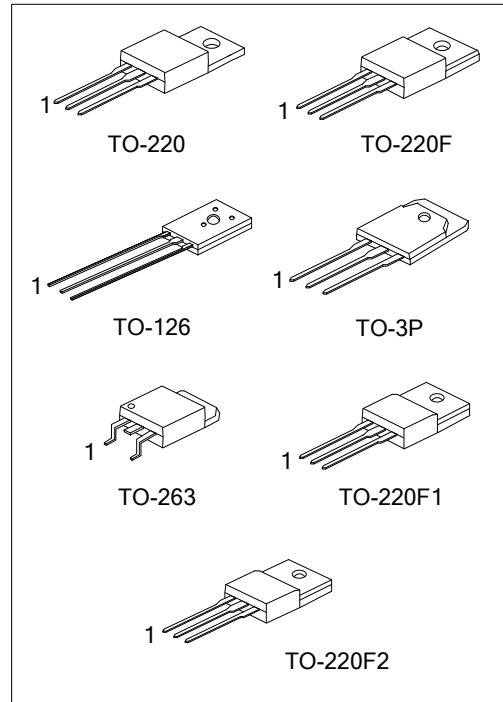




SWITCHING REGULATOR APPLICATIONS

■ **FEATURES**

- * High Speed.
- * High Breakdown Voltage ($V_{CBO}=1400V$).
- * High Reliability.



■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Description			Packing
Lead Free	Halogen Free		1	2	3	
C6084L-x-TA3 -T	C6084G-x-TA3-T	TO-220	B	C	E	Tube
C6084L-x-TF3 -T	C6084G-x-TF3-T	TO-220F	B	C	E	Tube
C6084L-x-TF1 -T	C6084G-x-TF1-T	TO-220F1	B	C	E	Tube
C6084L-x-TF2-T	C6084G-x-TF2-T	TO-220F2	B	C	E	Tube
C6084L-x-TQ2-T	C6084G-x-TQ2-T	TO-263	B	C	E	Tube
C6084L-x-TQ2-R	C6084G-x-TQ2-R	TO-263	B	C	E	Tape Reel
C6084L-x-T3P-T	C6084G-x-T3P-T	TO-3P	B	C	E	Tube
C6084L-x-T60-K	C6084G-x-T60-K	TO-126	B	C	E	Bulk

Note: Pin assignment: E: Emitter B: Base C: Collector

<p>C6084G-x-TA3-T</p>	<p>(1) T: Tube, R: Tape Reel, K: Bulk (2) TA3: TO-220, TF3: TO-220F, TF2: TO-220F2 TQ2: TO-263, T3P: TO-3P, T60: TO-126 (3) x: refer to Classification of h_{FE1} (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ **MARKING**

TO-220 / TO-220F / TO-220F1 TO-220F2 / TO-263 / TO-3P	TO-126

■ ABSOLUTE MAXIMUM RATING ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	1.4	KV
Collector-Emitter Voltage		V_{CEO}	800	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	TO-3P/TO-263 TO-220/TO-220F TO-220F1/TO-220F2	I_C	5	A
	TO-126		3	
	TO-3P/TO-263 TO-220/TO-220F TO-220F1/TO-220F2	I_{CP}	12	A
	TO-126		6	
Collector Dissipation ($T_A=25^\circ\text{C}$)	TO-126	P_C	1.25	W
	TO-3P		3.125	
	TO-220/ TO-263		1.75	
	TO-220F		1.35	
	TO-220F1/TO-220F2		1.45	
Collector Dissipation ($T_C=25^\circ\text{C}$)	TO-126	P_C	28	W
	TO-3P		100	
	TO-220/ TO-263		80	
	TO-220F		30	
	TO-220F1/TO-220F2		32	
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-55 ~ +150	$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER		SYMBOL	RATING	UNIT
Junction to Ambient	TO-126	θ_{JA}	100	$^\circ\text{C/W}$
	TO-3P		40	
	TO-220/ TO-263		71.4	
	TO-220F		92.6	
	TO-220F1/TO-220F2		86.2	
Junction to Case	TO-126	θ_{JC}	4.46	$^\circ\text{C/W}$
	TO-3P		1.25	
	TO-220/ TO-263		1.56	
	TO-220F		4.17	
	TO-220F1/TO-220F2		3.9	

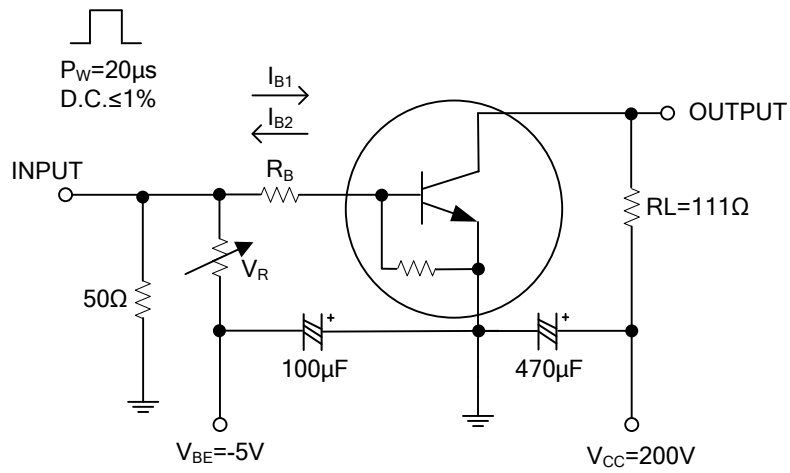
■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT	
Collector Cutoff Current	I_{CBO}	$V_{CB}=800\text{V}$, $I_E=0\text{A}$			10	μA	
Collector Cutoff Current	I_{CES}	$V_{CE}=1400\text{V}$, $R_{BE}=0\Omega$			1.0	mA	
Collector Sustain Voltage	$V_{CEO(SUS)}$	$I_C=10\text{mA}$, $I_B=0\text{A}$	800			V	
Emitter Cutoff Current	I_{EBO}	$V_{BE}=4\text{V}$, $I_C=0\text{A}$			1.0	mA	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	TO-220/TO-220F/TO-220F1 TO-220F2/TO-263/TO-3P			3	V	
		TO-126			3		
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	TO-220/TO-220F/TO-220F1 TO-220F2/TO-263/TO-3P			1.5	V	
		TO-126			1.5		
DC Current Gain	h_{FE1}	$V_{CE}=5\text{V}$, $I_C=0.5\text{A}$	10		25		
	h_{FE2}	TO-220/TO-220F/TO-220F1 TO-220F2/TO-263/TO-3P	$V_{CE}=5\text{V}$, $I_C=3\text{A}$	5		8	
		TO-126	$V_{CE}=5\text{V}$, $I_C=1.8\text{A}$	5			
Fall Time	T_F	$I_C=1.8\text{A}$, $I_{B1}=0.36\text{A}$, $I_{B2}=-0.72\text{A}$			0.2	μs	
Collector Output Capacitance	C_{ob}	$V_{CB}=0\text{V}$, $f=1\text{MHz}$		206		pF	
		$V_{CB}=10\text{V}$, $f=1\text{MHz}$		52.8		pF	

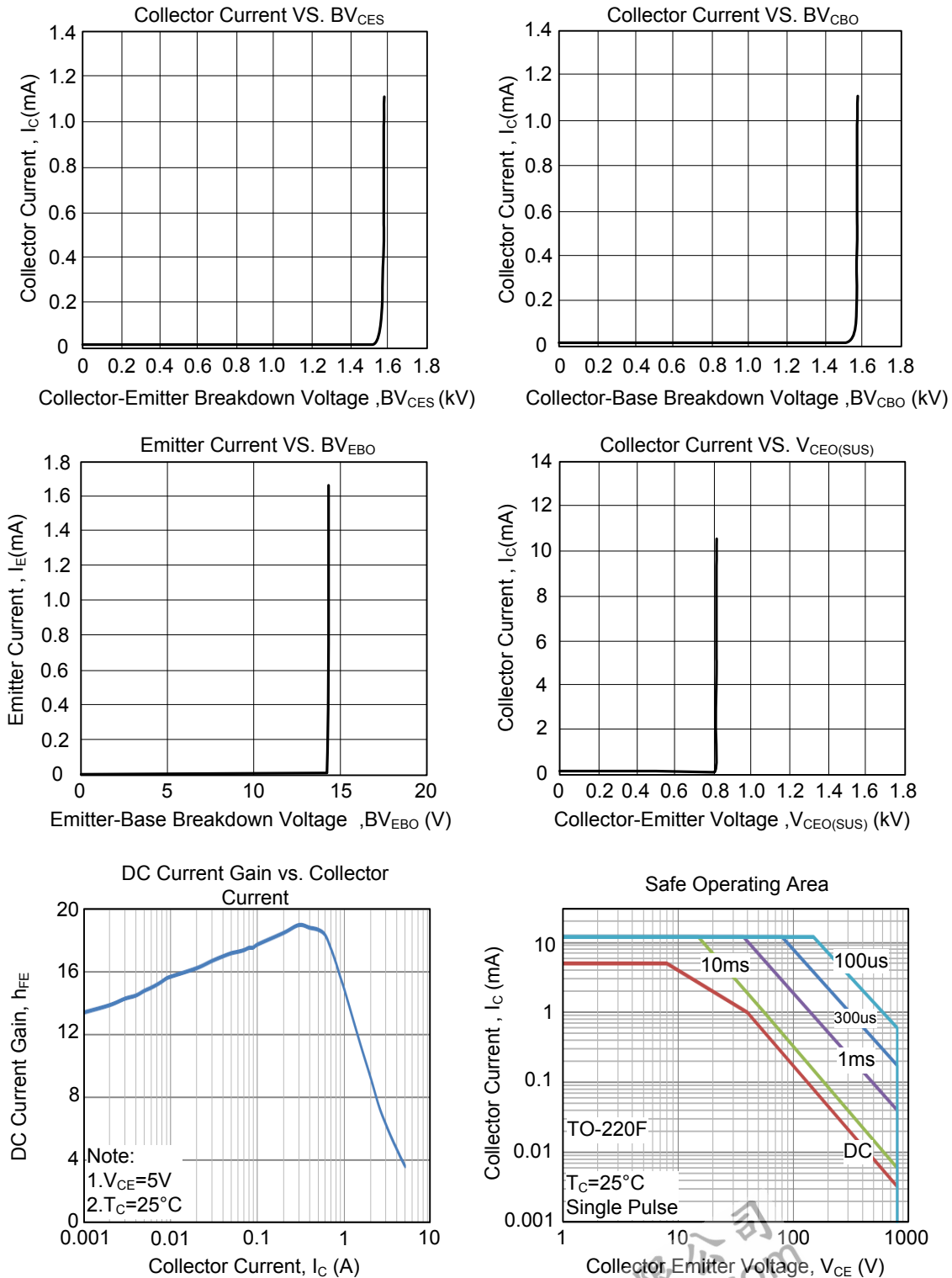
■ CLASSIFICATION OF h_{FE1}

RANK	A	B	C
RANGE	10 ~ 15	15 ~ 20	20 ~ 25

■ TEST CIRCUIT



TYPICAL CHARACTERISTICS



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