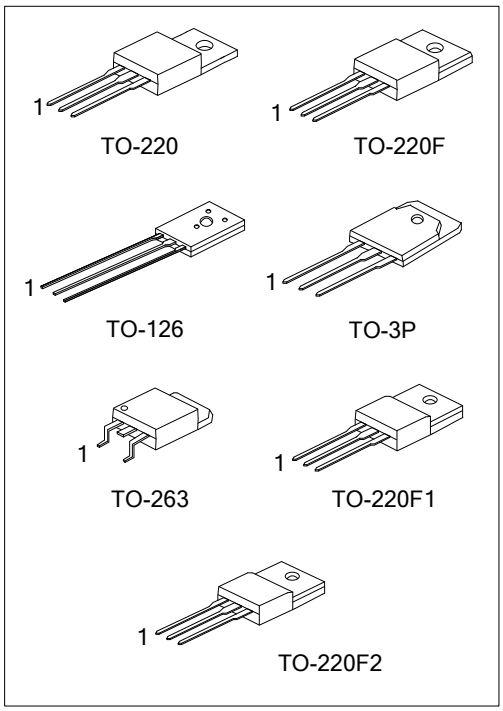
C6084

NPN SILICON TRANSISTOR

SWITCHING REGULATOR APPLICATIONS



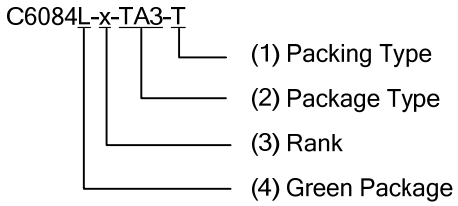
■ FEATURES

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

■ ORDERING INFORMATION

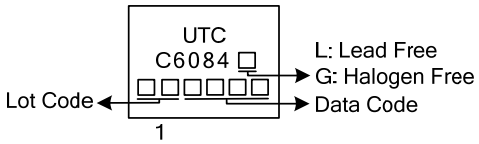
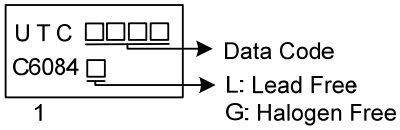
Ordering Number		Package	Pin Description			Packing
Lead Free	Halogen Free		1	2	3	
C6084L-x-TA3 -T	C6084G-x-TA3-T	TO-220	B	C	E	Tube
C6084L-x-TF3 -T	C6084G-x-TF3-T	TO-220F	B	C	E	Tube
C6084L-x-TF1 -T	C6084G-x-TF1-T	TO-220F1	B	C	E	Tube
C6084L-x-TF2-T	C6084G-x-TF2-T	TO-220F2	B	C	E	Tube
C6084L-x-TQ2-T	C6084G-x-TQ2-T	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



(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) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING

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

■ ABSOLUTE MAXIMUM RATING (T_A=25℃)

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	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	
Junction Temperature		T_J	150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°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.

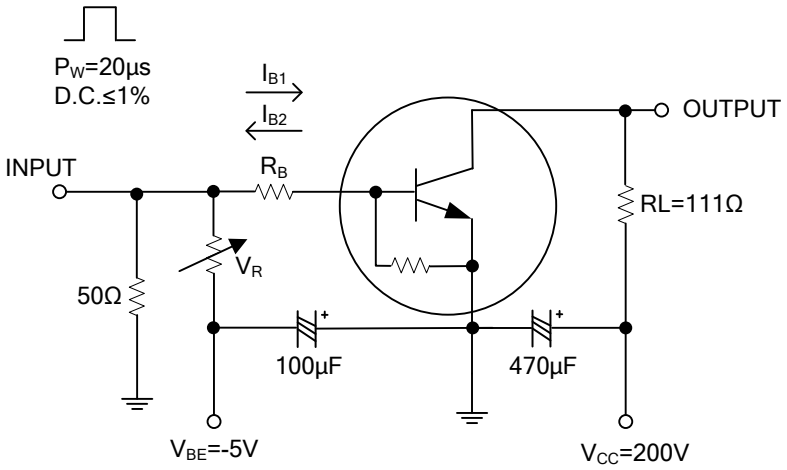
■ ELECTRICAL CHARACTERISTICS (T_A=25℃)

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cutoff Current		I_{CBO}	V_{CB}=800V, I_E=0A			10	μA
Collector Cutoff Current		I_{CES}	V_{CE}=1400V, R_{BE}=0Ω			1.0	mA
Collector Sustain Voltage		$V_{CEO(SUS)}$	I_C=10mA, I_B=0A	800			V
Emitter Cutoff Current		I_{EBO}	V_{BE}=4V, I_C=0A			1.0	mA
Collector-Emitter Saturation Voltage	TO-220/TO-220F/TO-220F1 TO-220F2/TO-263/TO-3P	$V_{CE(SAT)}$	I_C=2.7A, I_B=0.54A			3	V
	TO-126		I_C=1.4A, I_B=0.27A			3	
Base-Emitter Saturation Voltage	TO-220/TO-220F/TO-220F1 TO-220F2/TO-263/TO-3P	$V_{BE(SAT)}$	I_C=2.7A, I_B=0.54A			1.5	V
	TO-126		I_C=1.4A, I_B=0.27A			1.5	
DC Current Gain		h_{FE1}	V_{CE}=5V, I_C=0.5A	10		25	
	TO-220/TO-220F/TO-220F1 TO-220F2/TO-263/TO-3P	h_{FE2}	V_{CE}=5V, I_C=3A	5		8	
	TO-126		V_{CE}=5V, I_C=1.8A	5			
Fall Time		T_F	I_C=1.8A, I_{B1}=0.36A, I_{B2}=-0.72A			0.2	μS

■ CLASSIFICATION OF h_{FE1}

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

■ TEST CIRCUIT



■ TYPICAL CHARACTERISTICS