THERMAL DATA

$R_{thj\text{-}case}$	Thermal Resistance Junction-case	Max	3.12	$^oC/W$
$R_{thj\text{-}amb}$	Thermal Resistance Junction-ambient	Max	70	$^oC/W$

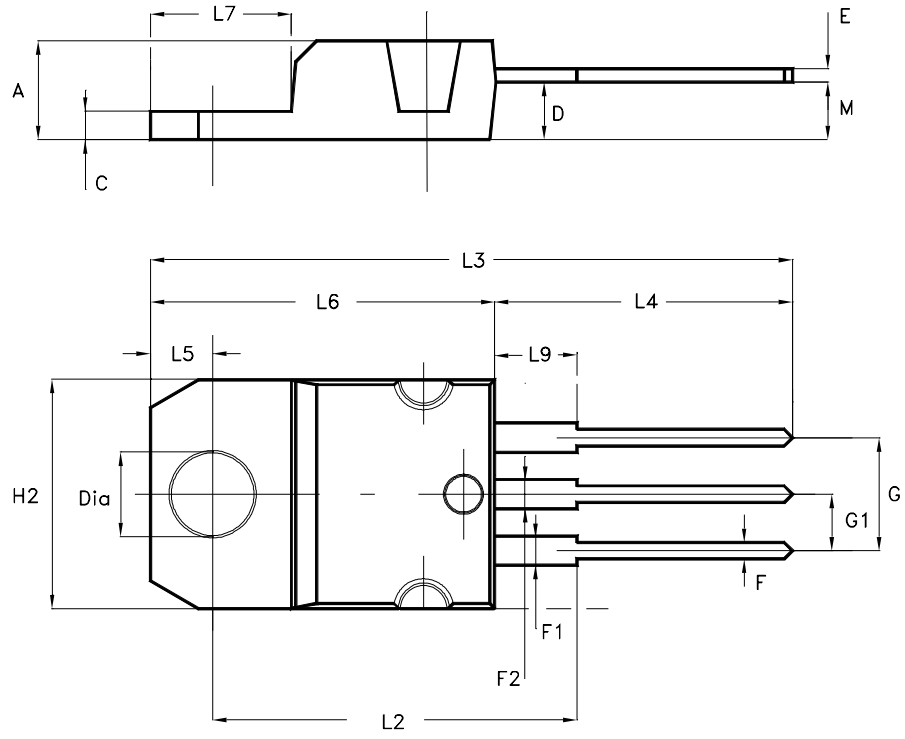
ELECTRICAL CHARACTERISTICS (T_{case} = 25 ^oC unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CEX}	Collector Cut-off Current (V_{BE} = - 1.5V)	V_{CE} = -40 V V_{CE} = -30 V T_C = 150 ^oC			-0.1 -2	mA mA
I_{CEO}	Collector Cut-off Current (I_B = 0)	V_{CE} = -20 V			-1	mA
I_{EBO}	Emitter Cut-off Current (I_C = 0)	V_{EB} = -5 V			-1	mA
$V_{CEO(sus)}$*	Collector-Emitter Sustaining Voltage (I_B = 0)	I_C = -0.1 A	-30			V
$V_{CER(sus)}$*	Collector-Emitter Sustaining Voltage (I_C = 0)	I_C = -0.1 A R_{BE} = 100 Ω	-40			V
$V_{CE(sat)}$*	Collector-Emitter Saturation Voltage	I_C = -2 A I_B = -0.2 A I_C = -7 A I_B = -3.0 A			-1 -3.5	V V
$V_{BE(on)}$*	Base-Emitter Voltage	I_C = -2 A V_{CE} = -4 V I_C = -7 A V_{CE} = -4 V			-5 -3	V V
h_{FE}*	DC Current Gain	I_C = -3 A V_{CE} = -4 V I_C = -7 A V_{CE} = -4 V	30 2.3		150	
h_{fe}	Small Signal Current Gain	I_C = -0.5 A V_{CE} = -4 V f = 50 KHz	20			
f_T	Transition-Frequency	I_C = -0.5 A V_{CE} = -4 V	4			MHz
C_{cbo}	Collector-base Capacitance	V_{CB} = -10 V f = 1 MHz			250	pF

* Pulsed: Pulse duration = 300 µs, duty cycle 1.5 %.

TO-220 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.40		4.60	0.173		0.181
C	1.23		1.32	0.048		0.052
D	2.40		2.72	0.094		0.107
E	0.49		0.70	0.019		0.027
F	0.61		0.88	0.024		0.034
F1	1.14		1.70	0.044		0.067
F2	1.14		1.70	0.044		0.067
G	4.95		5.15	0.194		0.202
G1	2.40		2.70	0.094		0.106
H2	10.00		10.40	0.394		0.409
L2		16.40			0.645	
L4	13.00		14.00	0.511		0.551
L5	2.65		2.95	0.104		0.116
L6	15.25		15.75	0.600		0.620
L7	6.20		6.60	0.244		0.260
L9	3.50		3.93	0.137		0.154
M		2.60			0.102	
DIA.	3.75		3.85	0.147		0.151



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