THERMAL DATA

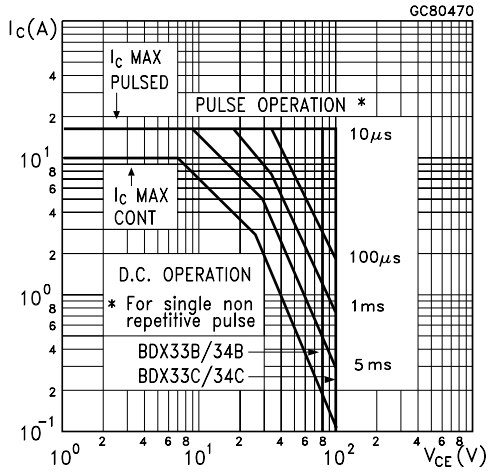
$R_{thj\text{-}case}$	Thermal Resistance Junction-case	1.78	°C/W

ELECTRICAL CHARACTERISTICS (T_{case} = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector Cut-off Current (I_E = 0)	for **BDX33B/34B** V_{CB} = 80 V for **BDX33C/34C** V_{CB} = 100V T_{case} = 100 °C for **BDX33B/34B** V_{CB} = 80 V for **BDX33C/34C** V_{CB} = 100 V			0.2 0.2 5 5	mA mA mA mA
I_{CEO}	Collector Cut-off Current (I_B = 0)	for **BDX33B/34B** V_{CE} = 40 V for **BDX33C/34C** V_{CE} = 50V T_{case} = 100 °C for **BDX33B/34B** V_{CE} = 40 V for **BDX33C/34C** V_{CE} = 50 V			0.5 0.5 10 10	mA mA mA mA
I_{EBO}	Emitter Cut-off Current (I_C = 0)	V_{EB} = 5 V			5	mA
$V_{CEO(sus)}$*	Collector-Emitter Sustaining Voltage (I_B = 0)	I_C =100 mA for **BDX33B/34B** for **BDX33C/34C**	80 100			V V
$V_{CER(sus)}$*	Collector-emitter Sustaining Voltage (R_{BE} =100 Ω)	I_C = 100 mA for **BDX33B/34B** for **BDX33C/34C**	80 100			V V
$V_{CEV(sus)}$*	Collector-emitter Sustaining Voltage (V_{BE} =-1.5 V)	I_C = 100 mA for **BDX33B/34B** for **BDX33C/34C**	80 100			V V
$V_{CE(sat)}$*	Collector-emitter Saturation Voltage	I_C = 3 A I_B = 6 mA			2.5	V
V_{BE}*	Base-emitter Voltage	I_C = 3 A V_{CE} = 3 V			2.5	V
h_{FE}*	DC Current Gain	I_C = 3 A V_{CE} = 3 V	750			V
V_F*	Parallel-Diode Forward Voltage	I_F = 8 A			4	V
h_{fe}	Small Signal Current Gain	I_C = 1 A V_{CE} = 5 V f = 1MHz	100			

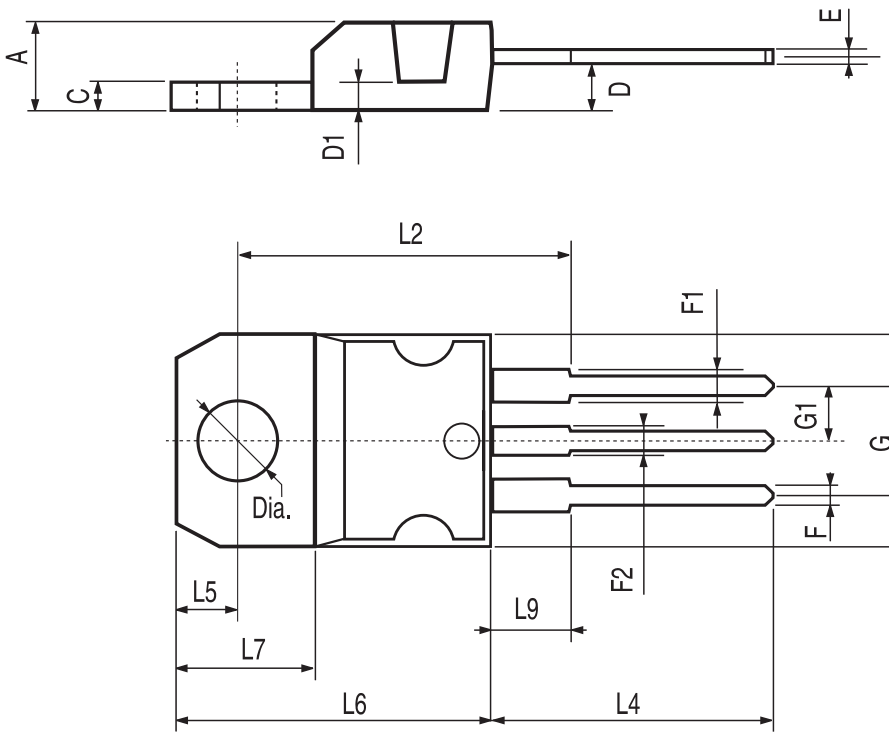
* Pulsed: Pulse duration = 300 µs, duty cycle 1.5 %
For PNP types voltage and current values are negative.

Safe Operating Area



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		0.051
D	2.40		2.72	0.094		0.107
D1		1.27			0.050	
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		0.203
G1	2.4		2.7	0.094		0.106
H2	10.0		10.40	0.393		0.409
L2		16.4			0.645	
L4	13.0		14.0	0.511		0.551
L5	2.65		2.95	0.104		0.116
L6	15.25		15.75	0.600		0.620
L7	6.2		6.6	0.244		0.260
L9	3.5		3.93	0.137		0.154
DIA.	3.75		3.85	0.147		0.151



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