TR BUT11A;ST;TO220;tranzystor; NPN;450V;5A;800ns;100W;Pbf

Dane techniczne:
Nazwa: BUT11A
Typ tranzystora: bipolarny
Kierunek przewodnictwa: NPN
Prąd kolektora: 5A
Napięcie kolektor-emiter: 450V
Moc: 100W
Montaż: przewlekany(THT)
Obudowa: TO220
Producent: ST

SGS-THOMSON MICROELECTRONICS

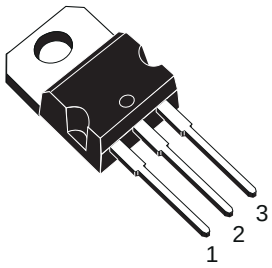
BUT11A

HIGH VOLTAGE FAST-SWITCHING NPN POWER TRANSISTOR

- SGS-THOMSON PREFERRED SALESTYPE
- NPN TRANSISTOR
- HIGH VOLTAGE CAPABILITY
- FAST SWITCHING SPEED

APPLICATIONS:

- FLYBACK AND FORWARD SINGLE TRANSISTOR LOW POWER CONVERTERS

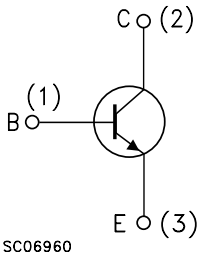


TO-220

DESCRIPTION

The BUT11A is a silicon multiepitaxial mesa NPN transistor in Jedec TO-220 plastic package, particularly intended for switching application.

INTERNAL SCHEMATIC DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CES}	Collector-Emitter Voltage (V_{BE} = 0 V)	1000	V
V_{CEO}	Collector-Emitter Voltage (I_B = 0)	450	V
V_{EBO}	Emitter-Base Voltage (I_C = 0)	9	V
I_C	Collector Current	5	A
I_{CM}	Collector Peak Current	10	A
I_B	Base Current	2	A
I_{BM}	Base Peak Current	4	A
P_{tot}	Total Power Dissipation at $T_c \leq 25\ ^oC$	83	W
T_{stg}	Storage Temperature	-65 to 150	^oC
T_j	Max. Operating Junction Temperature	150	^oC

THERMAL DATA

$R_{thj\text{-}case}$	Thermal Resistance Junction-case	Max	1.5	$^oC/W$

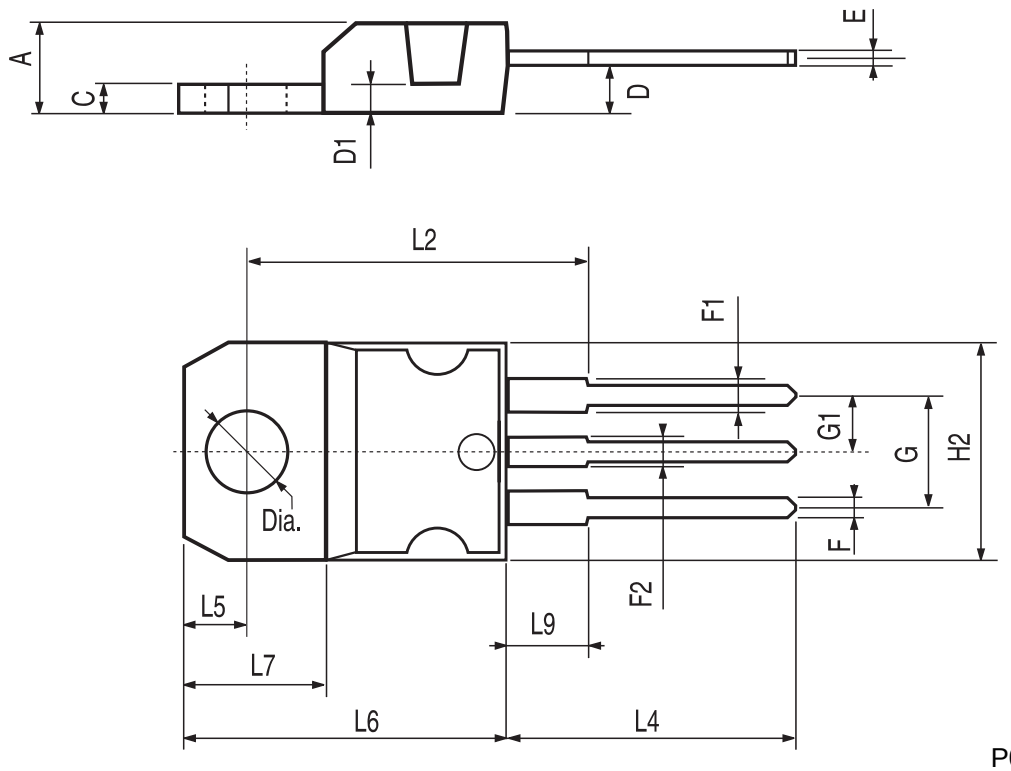
ELECTRICAL CHARACTERISTICS (T_{case} = 25 ^oC unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CES}	Collector Cut-off Current (V_{BE} = 0)	V_{CE} = rated V_{CES} at T_{case} = 125^oC			1 2	mA mA
I_{EBO}	Emitter Cut-off Current	I_C = 0 V_{BE} = 9 V			10	mA
$V_{CEO(sus)}$*	Collector-emitter Sustaining Voltage	$I_{B\ (off)}$ = 0 I_C = 100 mA	450			V
$V_{CE(sat)}$*	Collector-emitter Saturation Voltage	I_C = 2.5 A I_B = 0.5 A			1.5	V
$V_{BE(sat)}$*	Base-emitter Saturation Voltage	I_C = 2.5 A I_B = 0.5 A			1.3	V
t_{on}	Turn on Time	I_C = 2.5 A V_{CC} = 250 V $I_B = I_{B2}$ = 0.5 A			1	µs
t_s	Storage Time				4	µs
t_f	Fall Time				0.8	µs

* 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		0.051
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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