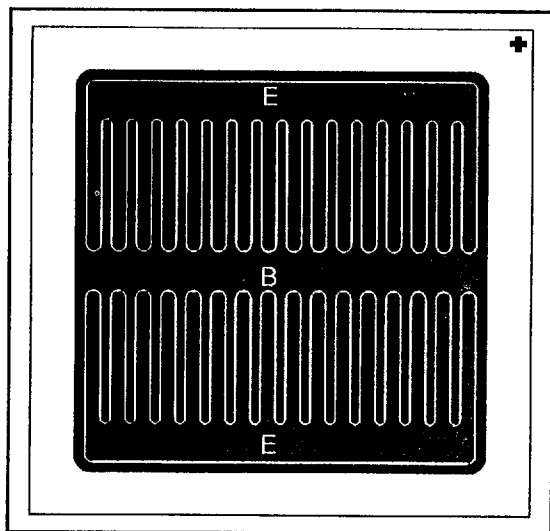


NPN Power Switching Transistor Die

Type OTC4830 450V, 5A

T-35-19



Note: Both emitters must be connected to achieve design characteristics. Two 7 mil wires on each side suggested.

Applications

- Switching Regulators
- PWM Inverters
- Motor Controls
- Solenoid Drivers
- Deflection Circuits

Features

- NPN Epitaxial Planar Power Transistor
- Contact Metallization
Base and Emitter: Aluminum
Collector: Titanium-Nickel Silver
- Complementary PNP Die: OTC4330
- Dimensions:
Die Size: .200 x .200 x .010 inch
Emitter Bond Area (E): .153 x .013 inch
Base Bond Area (B): .163 x .013 inch

Electrical Characteristics At 25°C (for a finished device using chip 4830 in a TO-3 or equivalent case)

Symbol	Parameter	4830-400L		4830-400H		4830-450L		Units	Test Conditions
		Min	Max	Min	Max	Min	Max		
V _{CEO(SUS)}	Collector Emitter Sustaining Voltage (2)	400		400		450		V	I _C = 200mA, I _{B1} = .05A, L = 2mH
V _{CEO}	Collector Emitter Sustaining Voltage (1)	400		400		450		V	I _C = 30mA
V _{CEO}	Collector Emitter Sustaining Voltage (1)(2)	400		400		450		V	I _C = 100mA
V _{CBO}	Collector Base	500		500		500		V	I _C = 0.5mA
I _{CEV}	Collector Cutoff		0.1		0.1		0.1	mA	V _{CE} = Rated V _{CBO} V _{BE(Off)} = -1.5V
I _{CEV}	Collector Cutoff (2)		2.0		2.0		2.0	mA	V _{CE} = Rated V _{CBO} V _{BE(Off)} = -1.5V T _C = 100°C
I _{EBO}	Emitter Cutoff		0.1		0.1		0.1	mA	V _{BE} = 9V, I _C = 0
B _{VEBO}	Emitter-Base Breakdown Voltage	10		10		10		V	I _E = 0.1mA
h _{FE}	D.C. Current Gain (1)	16	27	23	44	16	25		V _C = 5V, I _C = 1A
h _{FE}	D.C. Current Gain (1)(2)	15		22		15			V _C = 5V, I _C = 3A
h _{FE}	D.C. Current Gain (1)(2)	9		15		9			V _C = 5V, I _C = 5A
t _{on}	Turn-on Time (2)		0.55		0.55		0.55	μs	V _{CC} = 150V, I _{B1} = I _{B2} = 1A, I _C = 5A
t _s	Storage Time (2)		2.0		2.0		2.0	μs	
t _f	Fall Time (2)		0.5		0.5		0.5	μs	

(1) Pulse width 300 μsec 2% duty cycle

(2) These parameters verified on assembled devices. Data available upon request

(3) The OTC4830 is used in Optek device types 2N6580, 2N6581, 2N6583, SVT400-3, SVT400-5 and SVT450-3

Optek reserves the right to make changes at any time in order to improve design and to supply the best product possible.

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