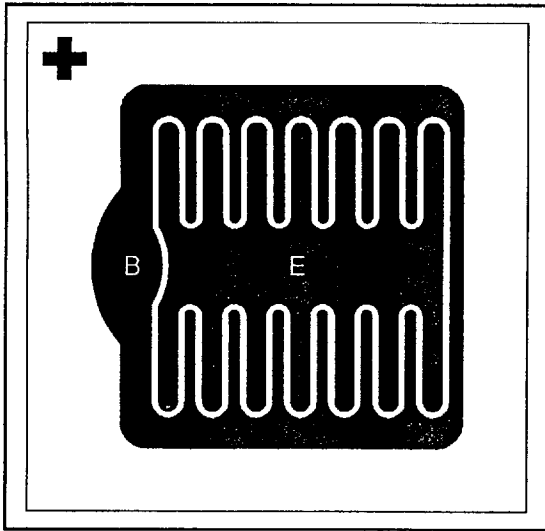


T-37-17

High Speed Switching PNP Transistor Die Type OTC2220



Applications

- Low Voltage Inverters
- Pulse Amplifiers
- Base Drive Circuits

Features

- PNP Epitaxial Planar Power Transistor
- Contact Metallization
Base and Emitter: Aluminum
Collector: Alloy Gold Suitable for Eutectic Mount
- Complementary NPN Die: OTC2420 Type
- Dimensions:
Die Size: .085 x .085 x .010 inch
Emitter Bond Area (E): .045 x .012 inch
Base Bond Area (B): .020 x .011 inch

Electrical Characteristics At 25°C

| Symbol | Parameter | 2220-100L | | 2220-100H | | Units | Test Conditions |
|----------------------|--|-----------|------|-----------|------|-------|---|
| | | Min | Max | Min | Max | | |
| I _{CBO} | Collector Cutoff | | -1.0 | | -1.0 | μA | V _{CB} = -100V |
| I _{CBO} | Collector Cutoff | | -10 | | -10 | μA | V _{CB} = -80V |
| I _{EBO} | Emitter-Base | | -100 | | -100 | nA | V _{EB} = -4V |
| BV _{CBO} | Collector-Base | -130 | | -100 | | V | I _C = -100μA |
| BV _{CEO} | Collector-Emitter | -100 | | -100 | | V | I _C = -50μA |
| BV _{CEO} | Collector-Emitter ⁽¹⁾ | -100 | | -100 | | V | I _C = -10mA |
| BV _{EBO} | Emitter-Base | -6 | | -6 | | V | I _E = -10μA |
| h _{FE} | D.C. Current Gain ⁽¹⁾ | 30 | 70 | 50 | 150 | | I _C = -1A, V _{CE} = -2V |
| | | 15 | | 25 | | | I _C = -3A, V _{CE} = -2V |
| | | 5 | | 10 | | | I _C = -5A, V _{CE} = -2V |
| V _{BE(sat)} | Base Saturation ⁽¹⁾⁽²⁾ | | -1.8 | | -1.5 | V | I _C = -3A, I _B = -.3A |
| V _{CE(sat)} | Collector Saturation ⁽¹⁾⁽²⁾ | | -1.2 | | -1.0 | V | I _C = -3A, I _B = -.3A |
| t(on) | Turn-on Time t _d + t _r ⁽²⁾ | | 140 | | 140 | ns | I _C = -1A, I _{B1} = I _{B2} = -20mA |
| t(off) | Turn off Time t _s + t _f ⁽²⁾ | | 500 | | 500 | ns | V _{CC} = -30V, PW = 10μs |
| C _{OB} | Output Capacitance ⁽¹⁾⁽²⁾ | | 100 | | 100 | pF | V _{CB} = -10V, f = 1MHz |

(1) Pulse width 300 μsec 2% duty cycle

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

(3) The OTC2220-100L is used by Optek for device types 2N3720, 2N3741 and 2N5405

The OTC2220-100H is used by Optek for device types 2N3741, 2N4906, 2N5407, 2N6226 and 2N6303

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

Optek Technology, Inc. 1215 W. Crosby Road, Carrollton, Texas 75006 (214) 323-2200 TLX 323-2200 Fax (214) 323-2396