

DESCRIPTION

2SC3728 is a silicon NPN epitaxial type transistor. There is a built-in zener diode between collector to emitter.

FEATURE

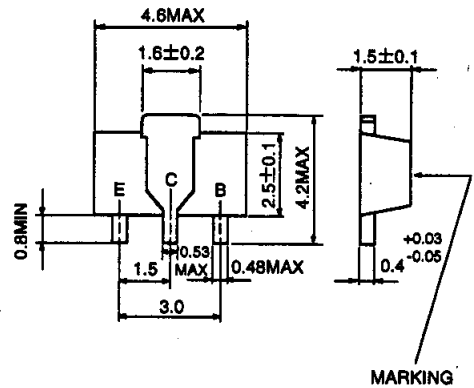
- High h_{FE} $h_{FE}=150$ to 800
- High collector current ($I_C=2A$)
- Low collector to emitter saturation voltage
 $V_{CE(sat)}=0.17V$ typ (@ $I_C=1A, I_B=50mA$)
- High collector dissipation $P_C=500mW$
- Small package for mounting

APPLICATION

Camera shutter, solenoid drive circuit.

OUTLINE DRAWING

Unit:mm



TERMINAL CONNECTOR

E : EMITTER
C : COLLECTOR
B : BASE

EIAJ : SC-82
JEDEC : -

Note)

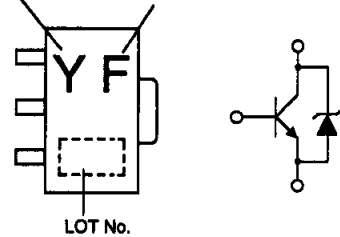
The dimension without tolerance represent central value.

MAXIMUM RATINGS (Ta=25°C)

| Symbol | Parameter | Ratings | Unit |
|------------------|--------------------------------|-------------|------|
| V _{CB0} | Collector to Base voltage | 20 | V |
| V _{EB0} | Emitter to Base voltage | 6 | V |
| V _{CE0} | Collector to Emitter voltage | 12 | V |
| I _{CM} | Peak Collector current | 3 | A |
| I _C | Collector current | 2 | A |
| P _C | Collector dissipation(Ta=25°C) | 500 | mW |
| T _J | Junction temperature | +150 | °C |
| T _{stg} | Storage temperature | -55 to +150 | °C |

MARKING

TYPE NAME h_{FE} ITEM



ELECTRICAL CHARACTERISTICS (Ta=25°C)

| Symbol | Parameter | Test conditions | Limits | | | Unit |
|----------------------|------------------------------|---|--------|-----|------|------|
| | | | Min | Typ | Max | |
| V _{(BR)CBO} | C to B break down voltage | I _C =10 μA, I _E =0 | 20 | | | V |
| V _{(BR)EBO} | E to B break down voltage | I _E =10 μA, I _C =0 | 6 | | | V |
| V _{(BR)CEO} | C to E break down voltage | I _C =5mA, R _{BE} =∞ | 12 | 14 | 16 | V |
| I _{CB0} | Collector cut off current | V _{CB} =16V, I _E =0 | | | 0.1 | μA |
| I _{EB0} | Emitter cut off current | V _{EB} =4V, I _C =0 | | | 0.1 | μA |
| h_{FE}^* | DC forward current gain | V _{CE} =4V, I _C =100mA | 150 | 350 | 800 | — |
| V _{CE(sat)} | C to E saturation voltage | I _C =1A, I _B =50mA | | 0.2 | 0.35 | V |
| f _T | Gain band width product | V _{CE} =2V, I _E =-10mA | 40 | 80 | | MHz |
| C _{ob} | Collector output capacitance | V _{CB} =10V, I _E =0, f=1MHz | | 28 | | pF |

* : It shows h_{FE} classification in right table.

| Marking | YE | YF | YG |
|----------|------------|------------|------------|
| h_{FE} | 150 to 300 | 250 to 500 | 400 to 800 |

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