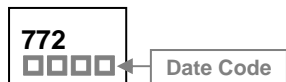


RoHS Compliant Product
A suffix of "-C" specifies halogen-free

DESCRIPTION

The SZD772 is signed for using in output stage of 10W amplifier, voltage regulator, DC-DC converter and relay driver.

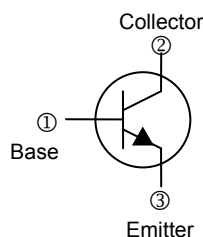
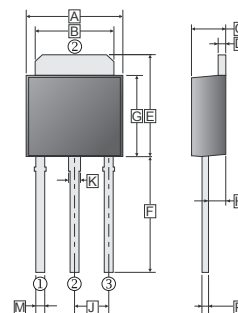
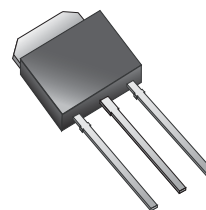
MARKING



CLASSIFICATION OF h_{FE} (2)

| Product-Rank | SZD772-Q | SZD772-P | SZD772-E |
|--------------|----------|----------|----------|
| Range | 100~200 | 160~320 | 250~500 |

TO-251



| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|------|------|------------|------|
| | Min. | Max. | | Min. | Max. |
| A | 6.40 | 6.80 | G | 5.40 | 5.80 |
| B | 5.20 | 5.50 | H | 0.90 | 1.50 |
| C | 2.20 | 2.40 | J | | 2.30 |
| D | 0.45 | 0.55 | K | 0.60 | 0.90 |
| E | 6.80 | 7.20 | M | 0.50 | 0.70 |
| F | 7.20 | 7.80 | P | 0.45 | 0.60 |

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

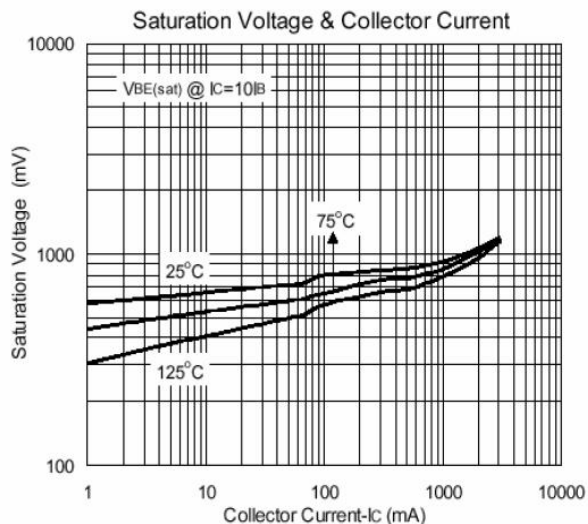
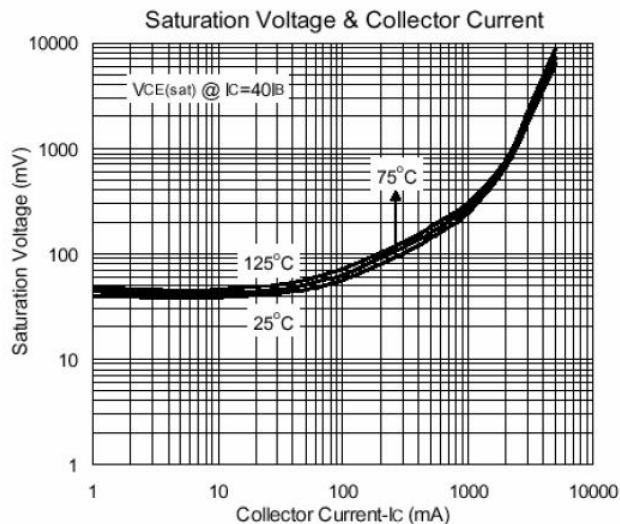
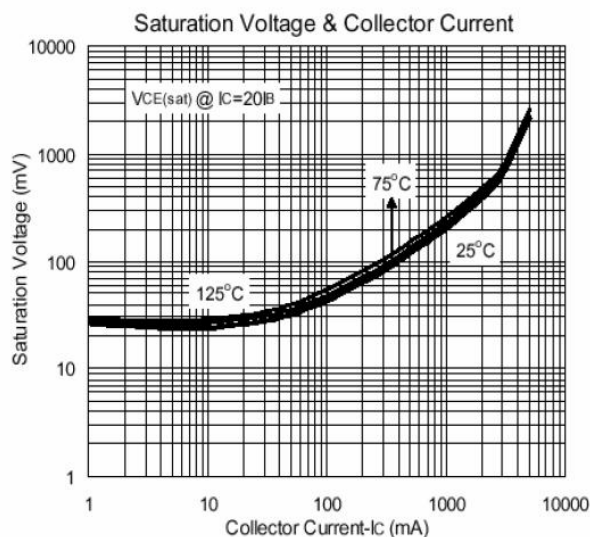
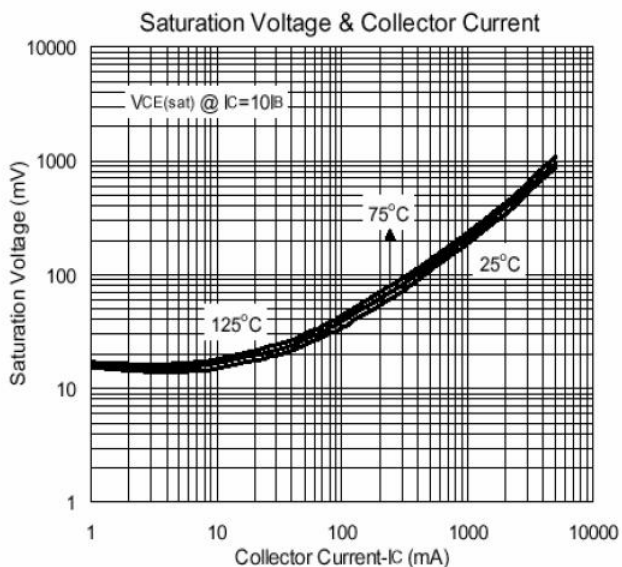
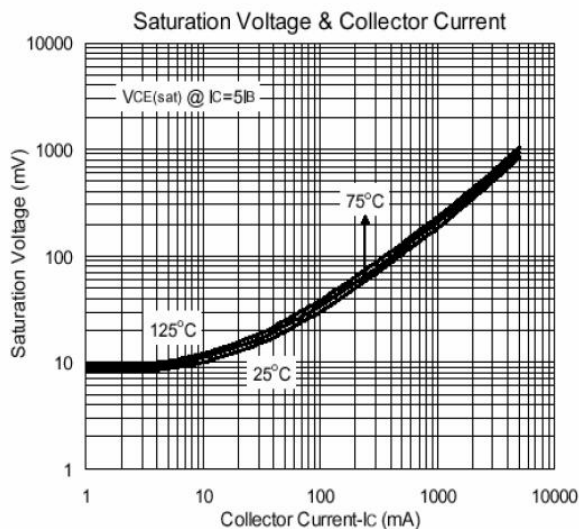
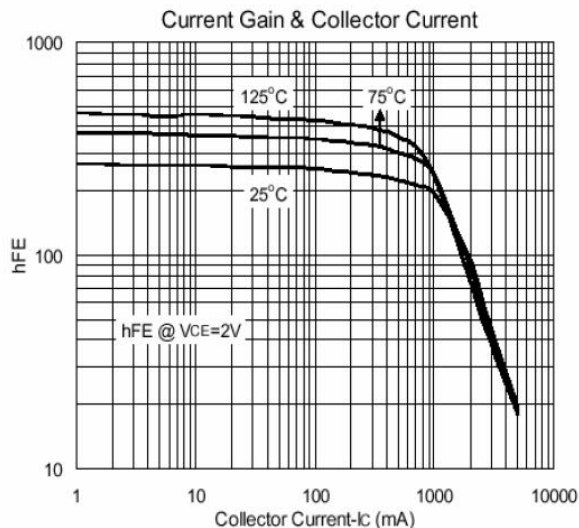
| Parameter | Symbol | Ratings | Unit |
|---|----------------|--------------|------------------|
| Collector-Base Voltage | V_{CBO} | -40 | V |
| Collector-Emitter Voltage | V_{CEO} | -30 | V |
| Emitter-Base Voltage | V_{EBO} | -5 | V |
| Collector Current | I_C | -3 | A |
| Collector Current (Pulse) | I_{CP} | -7 | A |
| Base Current | I_B | -0.6 | A |
| Total Power Dissipation($T_C=25^\circ\text{C}$) | P_D | 10 | W |
| Junction & Storage temperature | T_J, T_{STG} | 150, -55~150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|--------------------------------------|----------------|------|------|------|---------------|--|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | -40 | - | - | V | $I_C = -100\mu\text{A}, I_E = 0$ |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | -30 | - | - | V | $I_C = -1\text{mA}, I_B = 0$ |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | -5 | - | - | V | $I_E = -10\mu\text{A}, I_C = 0$ |
| Collector cut-off current | I_{CBO} | - | - | -1 | μA | $V_{CB} = -30\text{V}, I_E = 0$ |
| Emitter cut-off current | I_{EBO} | - | - | -1 | μA | $V_{EB} = -3\text{V}, I_C = 0$ |
| DC current gain | $*h_{FE(1)}$ | 30 | - | - | | $V_{CE} = -2\text{V}, I_C = -20\text{mA}$ |
| | $*h_{FE(2)}$ | 100 | - | 500 | | $V_{CE} = -2\text{V}, I_C = -1\text{A}$ |
| Collector-emitter saturation voltage | $*V_{CE(sat)}$ | - | -0.3 | -0.5 | V | $I_C = -2\text{A}, I_B = -0.2\text{A}$ |
| Base-emitter saturation voltage | $*V_{BE(sat)}$ | - | -1 | -2 | V | $I_C = -2\text{A}, I_B = -0.2\text{A}$ |
| Transition frequency | f_T | - | 80 | - | MHZ | $V_{CE} = -5\text{V}, I_C = -0.1\text{A}, f = 100\text{MHZ}$ |
| Output Capacitance | C_{ob} | - | 55 | - | pF | $V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHZ}$ |

*Pulse Test: Pulse Width $\leq 380\text{s}$, Duty Cycle $\leq 2\%$

CHARACTERISTIC CURVES



CHARACTERISTIC CURVES

