

KSC2331 TRANSISTOR (NPN)

FEATURE

Power dissipation

P_{CM} : 1 W ($T_{amb}=25^{\circ}C$)

Collector current

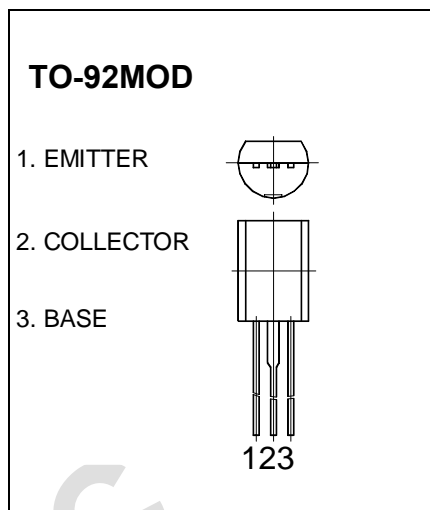
I_{CM} : 0.7 A

Collector-base voltage

$V_{(BR)CBO}$: 80 V

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$



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

| Parameter | Symbol | Test conditions | MIN | MAX | UNIT |
|--------------------------------------|---------------|------------------------|-----|-----|---------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C=100\mu A, I_E=0$ | 80 | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C=10mA, I_B=0$ | 60 | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E=10\mu A, I_C=0$ | 8 | | V |
| Collector cut-off current | I_{CBO} | $V_{CB}=60V, I_E=0$ | | 0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=5V, I_C=0$ | | 0.1 | μA |
| DC current gain | h_{FE1} | $V_{CE}=2V, I_C=50mA$ | 120 | 240 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=500mA, I_B=50mA$ | | 0.7 | V |
| Base-emitter voltage | $V_{BE(sat)}$ | $I_C=500mA, I_B=50mA$ | | 1.2 | V |
| Transition frequency | f_T | $V_{CE}=10V, I_C=50mA$ | 50 | | MHz |

CLASSIFICATION OF $h_{FE(1)}$

| | | |
|-------|-------|--------|
| Rank | R | O |
| Range | 40-80 | 70-140 |