

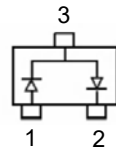
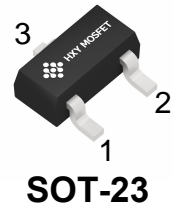


Features

- Peak Forward Current: $I_{FM}=200\text{mA}$
- Power Dissipation of 200mW

Package Marking and Ordering Information

| Product ID | Pack | Marking | Qty(PCS) |
|---------------------|--------|---------|----------|
| CMP SH-3S BK PBFREE | SOT-23 | KL4 | 3000 |



Maximum Ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|--|---------------------------------|-----------------|----------------------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 30 | V |
| Forward Continuous Current | I_{FM} | 200 | mA |
| Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$ | I_{FSM} | 600 | mA |
| Repetitive Peak Forward Current @ $t\leq 1\text{s}, \delta\leq 0.5$ | I_{FRM} | 300 | mA |
| Power Dissipation | P_D | 200 | mW |
| Thermal Resistance from Junction to Ambient | $R_{\theta JA}$ | 500 | $^{\circ}\text{C/W}$ |
| Operating Junction Temperature Range | T_j | $-40 \sim +125$ | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_{stg} | $-55 \sim +150$ | $^{\circ}\text{C}$ |

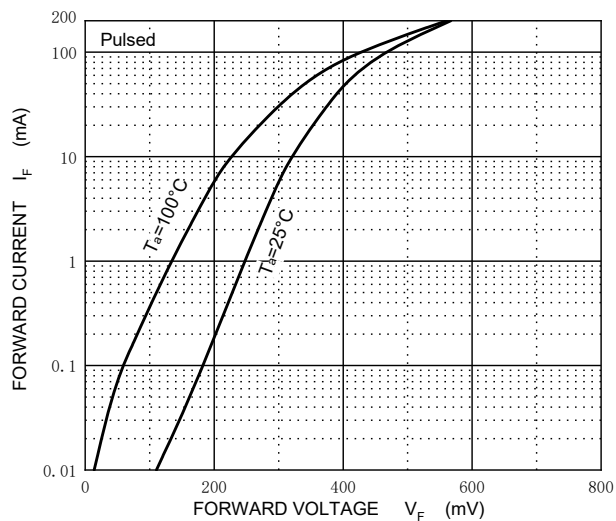
Electrical Characteristics ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

| Parameter | Symbol | Min | Typ | Max | Unit | Test conditions |
|-----------------------|------------|-----|-----|------|---------------|--|
| Reverse voltage | $V_{(BR)}$ | 30 | | | V | $I_R=100\mu\text{A}$ |
| Forward voltage | V_F | | | 0.24 | V | $I_{F1}=0.1\text{mA}$ |
| | | | | 0.32 | V | $I_{F2}=1\text{mA}$ |
| | | | | 0.40 | V | $I_{F3}=10\text{mA}$ |
| | | | | 0.50 | V | $I_{F4}=30\text{mA}$ |
| | | | | 1 | V | $I_{F5}=100\text{mA}$ |
| Reverse current | I_R | | | 2 | μA | $V_R=25\text{V}$ |
| Diode capacitance | C_D | | | 10 | pF | $V_R=1\text{V}, f=1\text{MHz}$ |
| Reverse recovery time | t_{rr} | | | 5 | ns | $I_F=I_R=10\text{mA}$ $I_{rr}=0.1\times I_R, R_L=100\Omega$ |

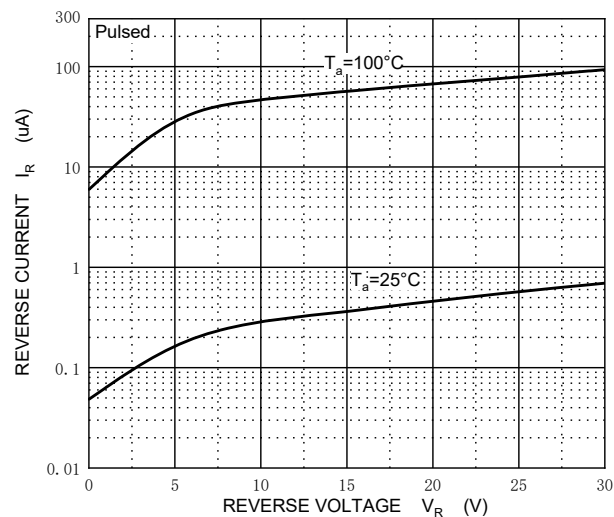


Typical Characteristics

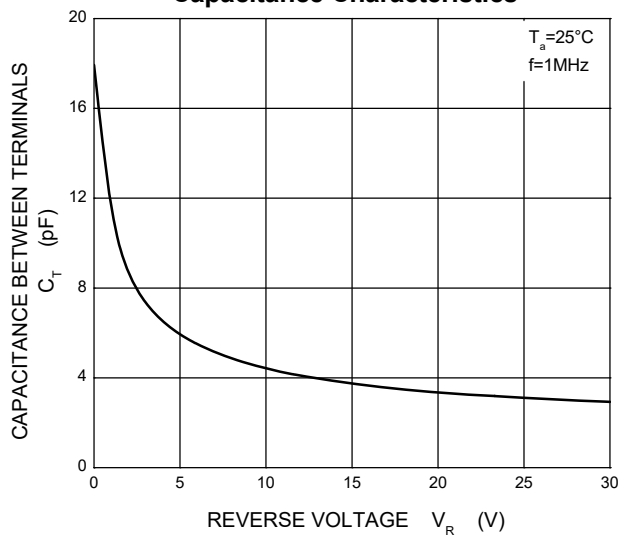
Forward Characteristics



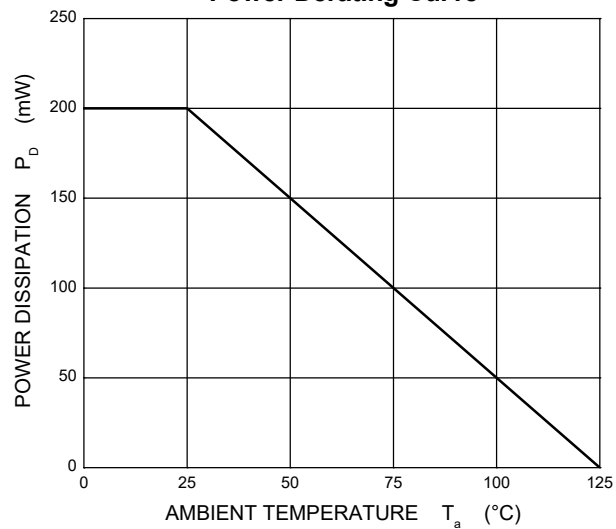
Reverse Characteristics



Capacitance Characteristics

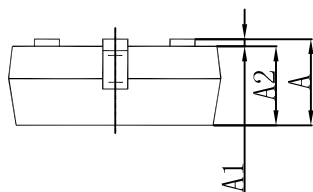
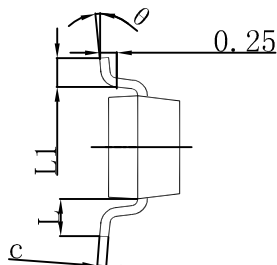
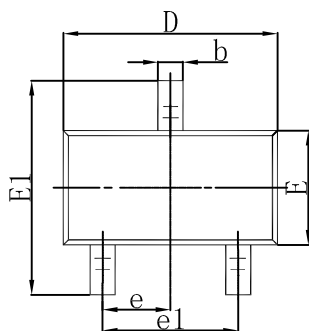


Power Derating Curve



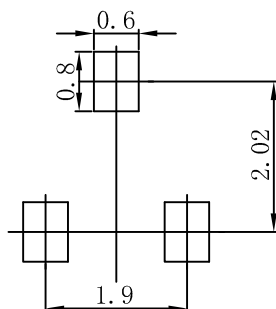


SOT-23 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.900 | 1.150 | 0.035 | 0.045 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| E | 1.200 | 1.400 | 0.047 | 0.055 |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 |
| e | 0.950 TYP | | 0.037 TYP | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.550 REF | | 0.022 REF | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0° | 8° | 0° | 8° |

SOT-23 Suggested Pad Layout



Note:
1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.



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