

CSRS065V0-G

Working Voltage: 5Volts
RoHS Device



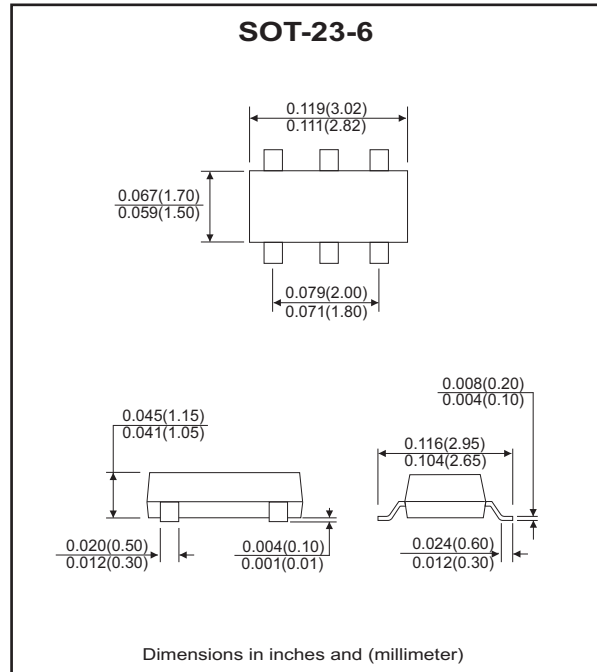
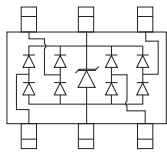
Features

- Fast Reverse Recovery Time.
- Fast Turn on Time.
- Low Capacitance SMD Packages.

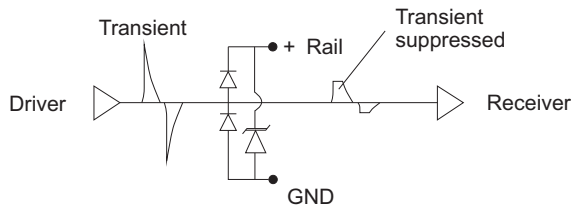
Mechanical Data

- Case: SOT-23-6 Standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750D, method 2026.
- Mounting position: Any.
- Weight: 0.013 gram (approx.).

Circuit Diagram



Applications



Maximum Ratings (at TA=25°C unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|-----------------------|----------------|-------------|------|
| Operating temperature | T _J | -55 to +150 | °C |

Electrical Characteristics (at TA=25°C unless otherwise noted)

| Parameter | Conditions | Symbol | Min. | Max. | Unit |
|---------------------------|--|------------------|------|------|------|
| Forward voltage | I _F =50mA | V _F | | 1.2 | V |
| Reverse stand-off voltage | | V _{RWM} | | 5 | V |
| Diode breakdown voltage | I _R =1μA | V _{BD} | 6 | | V |
| Reverse leakage current | V _{RWM} =5V | I _R | | 5 | μA |
| Junction capacitance | f=1MHz, V _R =0V, Line to ground f=1MHz, V _R =0V, Line to Line | C _T | | 5 | pF |
| ESD capability | IEC 61000-4-2 | ESD | | 16 | kV |
| Peak pulse power | T _P =8/20 μS | P _{PP} | | 300 | W |

Rating and Characteristic Curves (CSRS065V0-G)

Fig.1 Pulse Power vs. Time

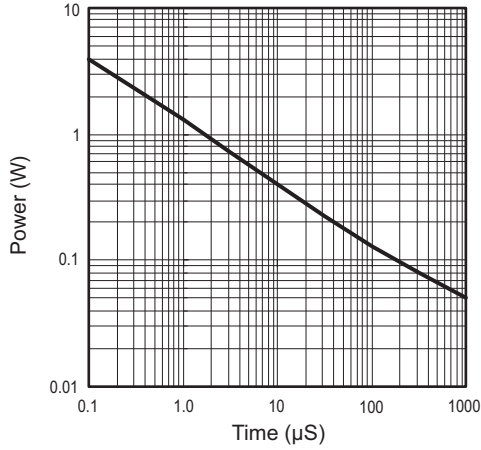


Fig.2 Power Derating

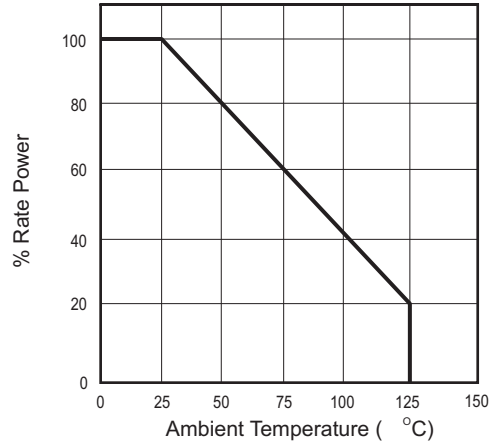


Fig.3 Pulse Waveform

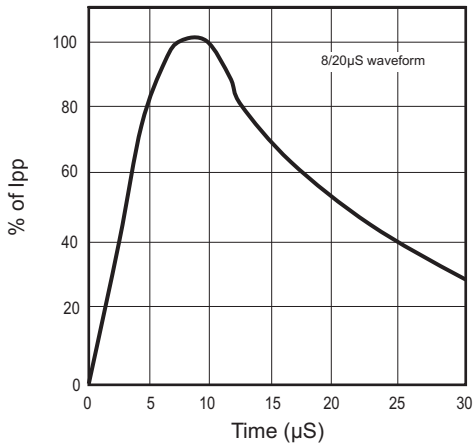


Fig.4 Clamp Voltage vs. Pulse Current

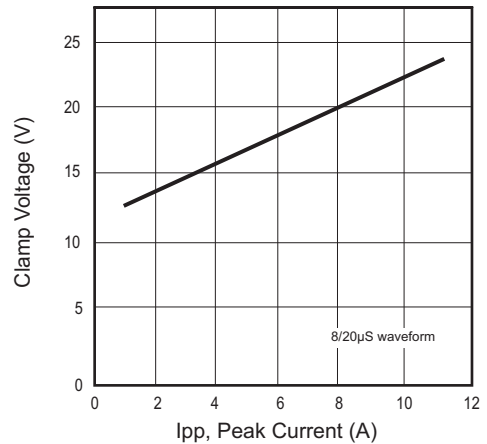


Fig.5 Forward Voltage vs. Forward Current

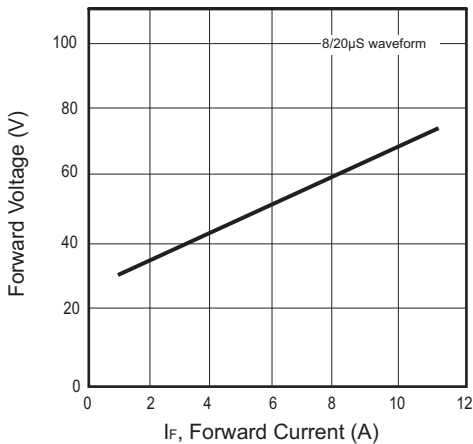
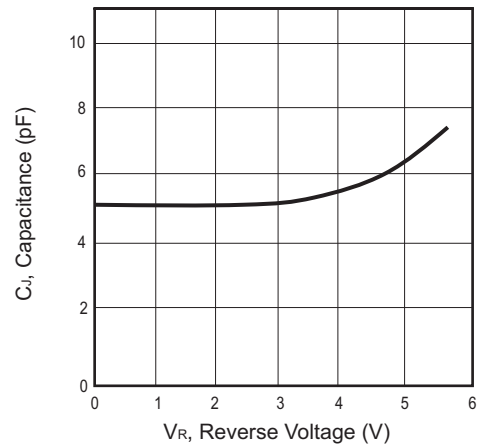
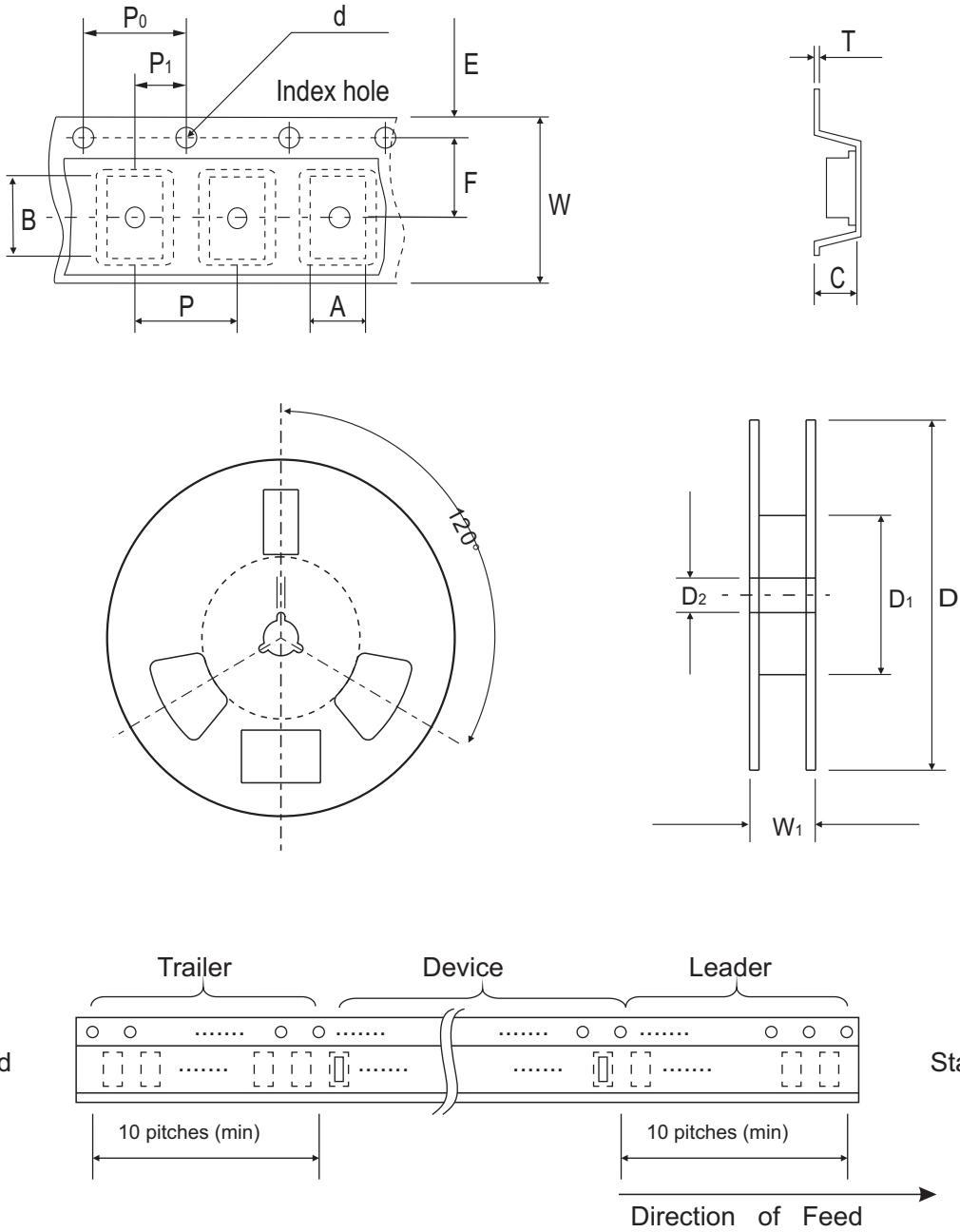


Fig.6 Capacitance vs. Reverse Voltage



Reel Taping Specification

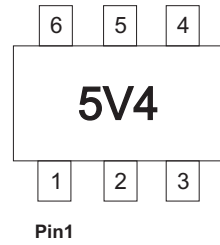


| SOT-23-6 | SYMBOL | A | B | C | d | D | D1 | D2 |
|----------|--------|---------------|---------------|---------------|---------------|---------------|------------|---------------|
| | (mm) | 3.17 ± 0.10 | 3.23 ± 0.10 | 1.37 ± 0.10 | 1.55 ± 0.10 | 178 ± 1 | 50.0 MIN. | 13.0 ± 0.20 |
| | (inch) | 0.124 ± 0.004 | 0.127 ± 0.004 | 0.054 ± 0.004 | 0.061 ± 0.004 | 7.008 ± 0.040 | 1.969 MIN. | 0.512 ± 0.008 |

| SOT-23-6 | SYMBOL | E | F | P | P0 | P1 | T | W | W1 |
|----------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------|
| | (mm) | 1.75 ± 0.10 | 3.50 ± 0.05 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 | 0.22 ± 0.05 | 8.00 ± 0.30 | 14.4 MAX. |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.009 ± 0.002 | 0.315 ± 0.012 | 0.567 MAX |

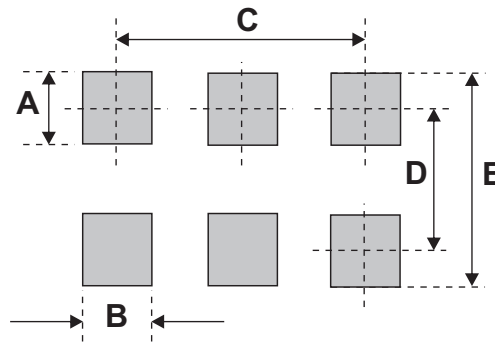
Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| CSRS065V0-G | 5V4 |



Suggested PAD Layout

| SIZE | SOT-23-6 | |
|------|----------|--------|
| | (mm) | (inch) |
| A | 1.10 | 0.043 |
| B | 0.60 | 0.024 |
| C | 0.95 | 0.037 |
| D | 2.50 | 0.098 |
| E | 3.60 | 0.142 |



Standard Packaging

| Case Type | REEL PACK | |
|-----------|--------------|------------------|
| | REEL (pcs) | Reel Size (inch) |
| SOT-23-6 | 3,000 | 7 |