

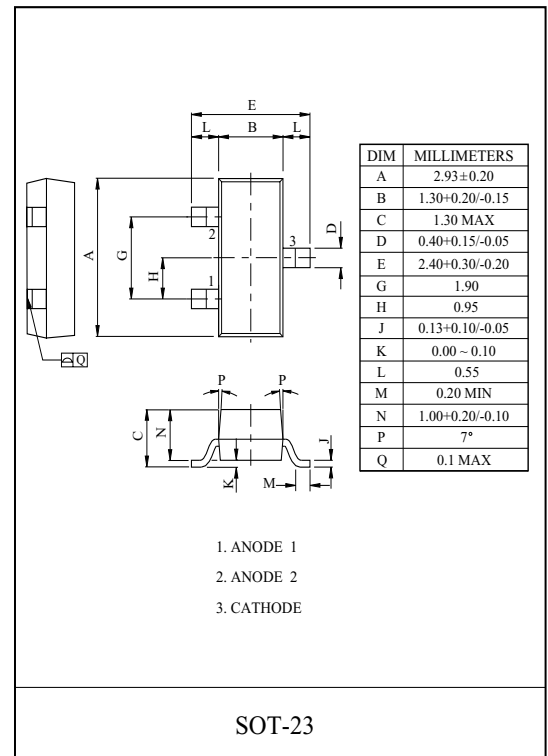
Protection in Portable Electronics Applications.

## FEATURES

- 350 Watts peak pulse power ( $t_p=8/20 \mu s$ )
- Transient protection for data lines to  
IEC 61000-4-2(ESD) 15kV(Air), 8kV(Contact)  
IEC 61000-4-4(EFT) 40A( $t_p=5/50ns$ )  
IEC 61000-4-5(Lightning) 15A( $t_p=8/20 \mu s$ )
- Standard SOT-23 Package.
- Protects one Bidirectional line or two Unidirectional Lines.
- Low clamping voltage.
- Low leakage current.

## APPLICATIONS

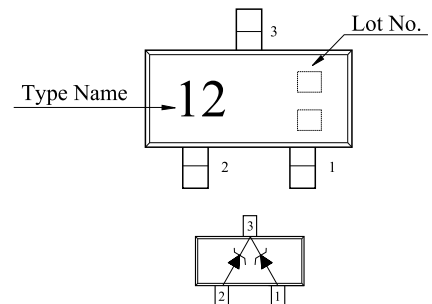
- Cell phone handsets and accessories.
- Microprocessor based equipment.
- Industrial Controls.
- Personal digital assistants (PDA s)
- Notebooks, desktops PC, & servers.
- Portable instrumentation.
- Set-Top Box, DVD Player.



## MAXIMUM RATING (Ta=25 °C)

| CHARACTERISTIC                          | SYMBOL    | RATING  | UNIT |
|-----------------------------------------|-----------|---------|------|
| Peak Pulse Power ( $t_p=8/20 \mu s$ )   | $P_{PK}$  | 350     | W    |
| Peak Pulse Current ( $t_p=8/20 \mu s$ ) | $I_{PP}$  | 15      | A    |
| Operating Temperature                   | $T_j$     | -55 150 |      |
| Storage Temperature                     | $T_{stg}$ | -55 150 |      |

## Marking

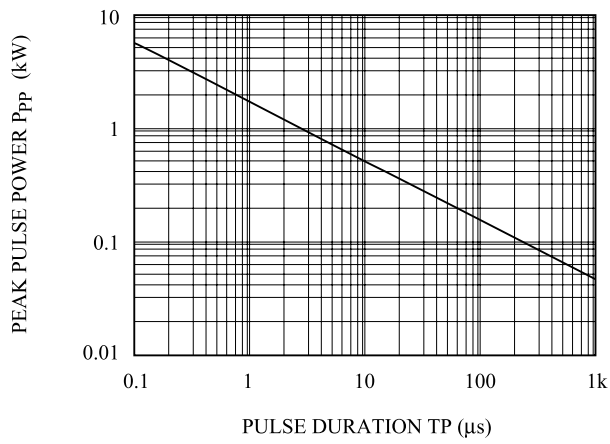


## ELECTRICAL CHARACTERISTICS (Ta=25 °C)

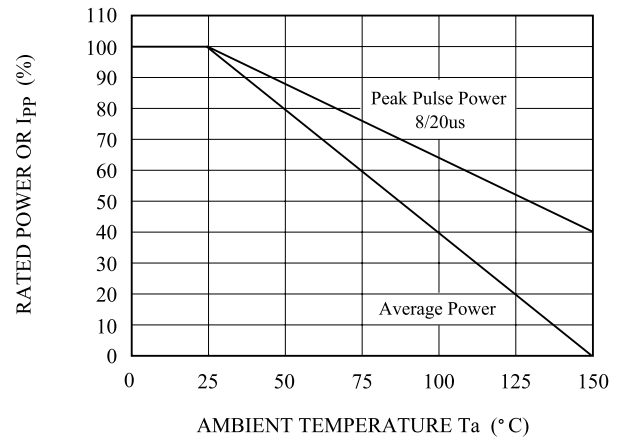
| CHARACTERISTIC            | SYMBOL    | TEST CONDITION                                | MIN. | TYP. | MAX. | UNIT    |
|---------------------------|-----------|-----------------------------------------------|------|------|------|---------|
| Reverse Stand-Off Voltage | $V_{RWM}$ | -                                             | -    | -    | 12   | V       |
| Reverse Breakdown Voltage | $V_{BR}$  | $I_t=1mA$                                     | 13.3 | -    | -    | V       |
| Reverse Leakage Current   | $I_R$     | $V_{RWM}=12V$                                 | -    | -    | 0.1  | $\mu A$ |
| Clamping Voltage          | $V_C$     | $I_{PP}=15A, t_p=8/20 \mu s$                  | -    | -    | 25   | V       |
| Junction Capacitance      | $C_J$     | $V_R=0V, f=1MHz$<br>Pin 3 to 1 and Pin 3 to 2 | -    | -    | 120  | pF      |

# PG12GCS23

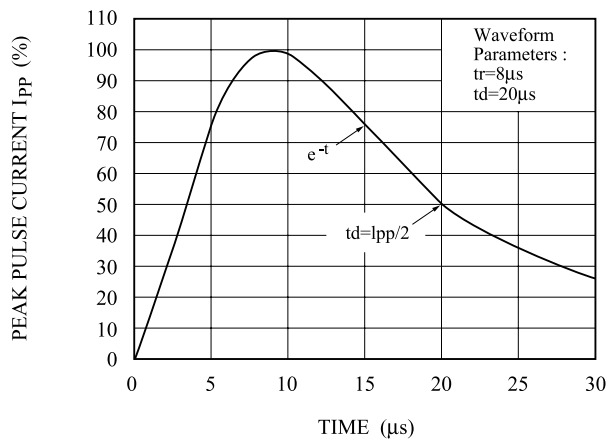
NON-REPETITIVE PEAK PULSE POWER VS. PULSE TIME



POWER DERATION CURVE



PULSE WAVEFORM



$C_J - V_R$

