

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) 24A( $t_p=8/20\mu s$ )
- Unidirectional protection of four I/O lines.
- Low clamping voltage.
- Low operating and leakage current.
- Small package for use in portable electronics.

## APPLICATIONS

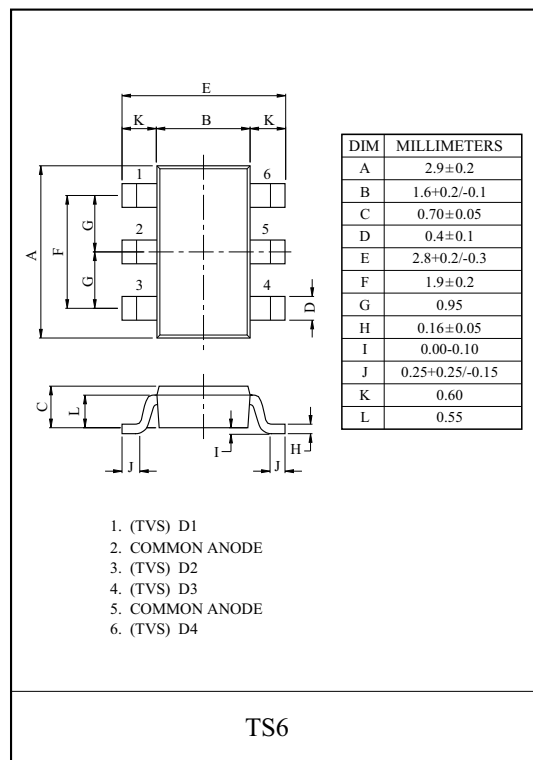
- Cell phone handsets and accessories.
- Cordless Phones.
- Personal digital assistants (PDA's)
- Notebooks, desktops PC & servers.
- Portable instrumentation.
- Set-Top Bosx, DVD Player.
- Digital Camera.

## MAXIMUM RATING (Ta=25 °C)

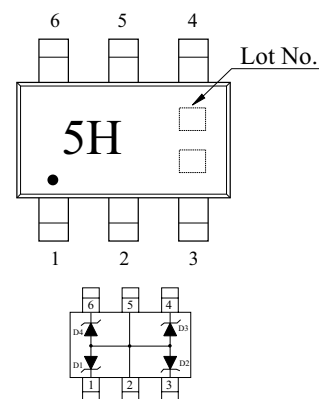
| CHARACTERISTIC                         | SYMBOL    | RATING    | UNIT |
|----------------------------------------|-----------|-----------|------|
| Peak Pulse Power ( $t_p=8/20\mu s$ )   | $P_{PK}$  | 350       | W    |
| Peak Pulse Current ( $t_p=8/20\mu s$ ) | $I_{PP}$  | 24        | A    |
| Operating Temperature                  | $T_j$     | -55 ~ 150 | °C   |
| Storage Temperature                    | $T_{stg}$ | -55 ~ 150 | °C   |

## ELECTRICAL CHARACTERISTICS (Ta=25 °C)

| CHARACTERISTIC            | SYMBOL    | TEST CONDITION                               | MIN. | TYP. | MAX. | UNIT    |
|---------------------------|-----------|----------------------------------------------|------|------|------|---------|
| Reverse Stand-Off Voltage | $V_{RWM}$ | -                                            | -    | -    | 5    | V       |
| Reverse Breakdown Voltage | $V_{BR}$  | $I_t=1mA$                                    | 6    | -    | -    | V       |
| Reverse Leakage Current   | $I_R$     | $V_{RWM}=5V$                                 | -    | -    | 20   | $\mu A$ |
| Clamping Voltage          | $V_C$     | $I_{PP}=5A, t_p=8/20\mu s$                   | -    | -    | 9.8  | V       |
|                           |           | $I_{PP}=24A, t_p=8/20\mu s$                  | -    | -    | 14.5 |         |
| Junction Capacitance      | $C_J$     | $V_R=0V, f=1MHz$<br>Between I/O Pins and GND | -    | 325  | 400  | pF      |

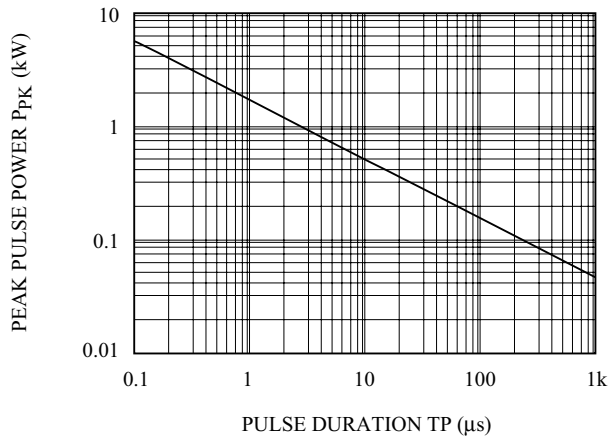


## Marking

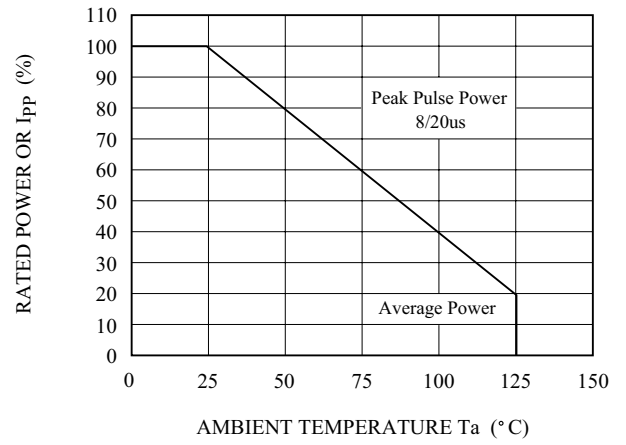


# PG05HBTS6

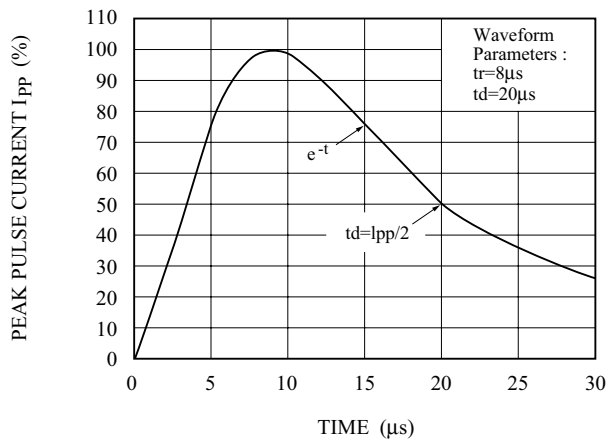
NON-REPETITIVE PEAK PULSE POWER VS. PULSE TIME



POWER DERATION CURVE



PULSE WAVEFORM



CLAMPING VOLTAGE VS. PEAK PULSE CURRENT

