

5Z27, 5Z30

POWER SURGE SUPPRESSOR

--- designed for use as a reverse power transient suppressor to protect automotive electrical equipment from over-voltage conditions.

- Excellent Clamp Voltage Characteristics
- High Power Capability
- Rapidly Surge Absorption
- Excellent Surge Responsibility
- Various Lead Types
- Non-Standard Voltage Available

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

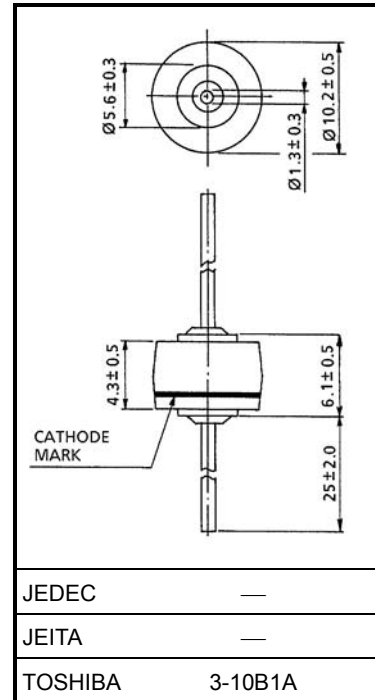
| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|------------------|---------|------|
| Allowable Power Dissipation (Note 1) | P | 5 | W |
| Non-Repetitive Peak Reverse Surge Current (Ta=25°C) (Fig.1) | I _{RSM} | 62 | A |
| Junction Temperature | T _j | -40~150 | °C |
| Storage Temperature | T _{stg} | -40~150 | °C |

Note 1: Lead tip temperature
T_L=25°C

Note 2: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/Derating Concept and Methods) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Unit: mm



Weight: 2.7 g (typ.)

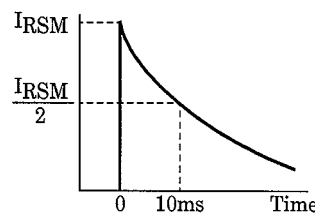
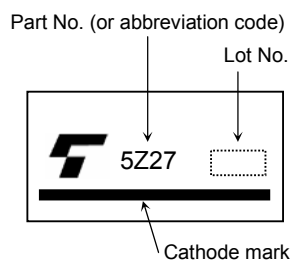


Fig.1

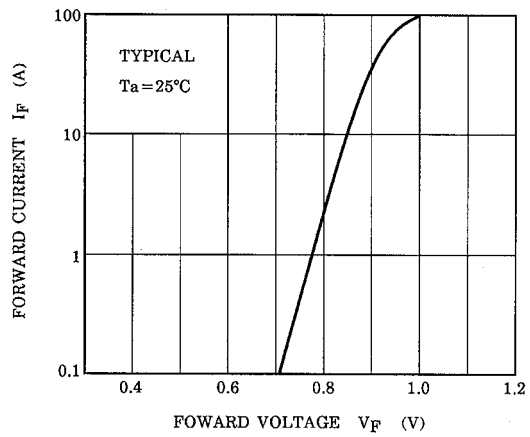
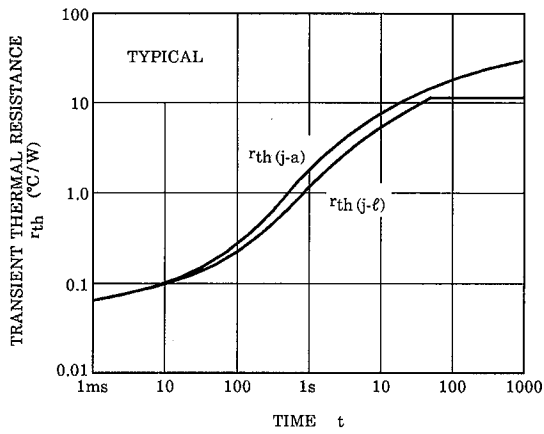
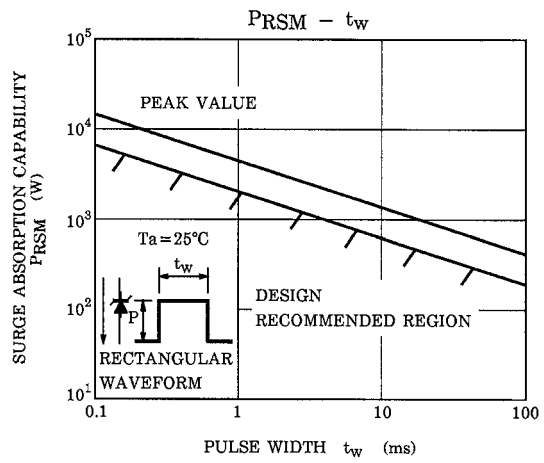
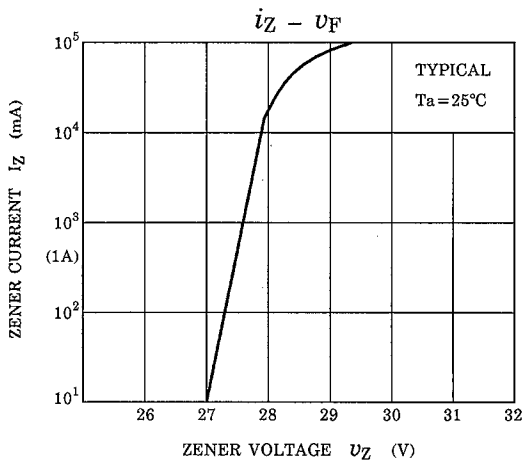
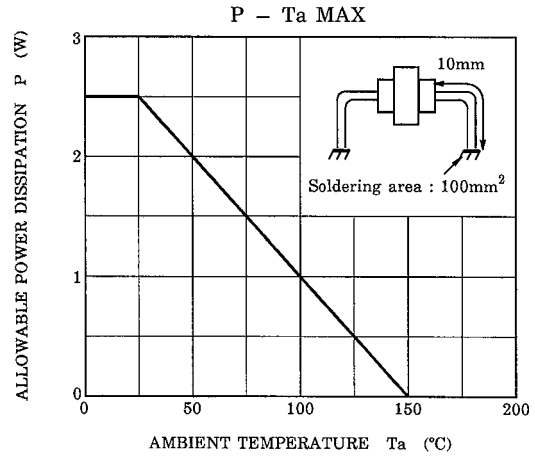
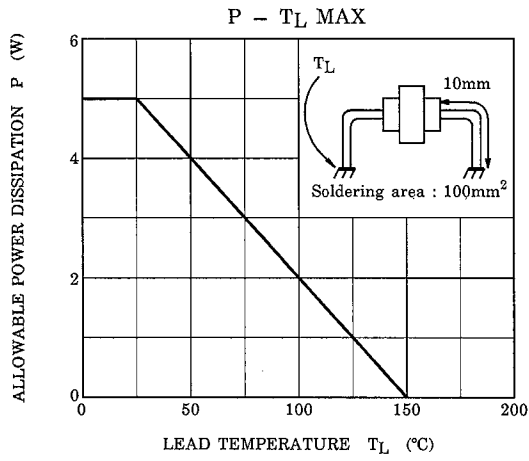
MARKING



| Abbreviation Code | Part No. |
|-------------------|----------|
| 5Z27 | 5Z27 |
| 5Z30 | 5Z30 |

ELECTRICAL CHARACTERISTICS (Ta=25°C)

| TYPE | ZENER VOLTAGE V_Z (V) ($I_Z=10\text{mA}$) | | | ZENER IMPEDANCE r_d (Ω) ($I_Z=10\text{mA}$) | TEMPERATURE COEFFICIENT α_T (mV / °C) ($I_Z=10\text{mA}$) | | FORWARD VOLTAGE V_F (V) ($I_F=6\text{A}$) | REVERSE CURRENT I_R (μA) ($V_R=22\text{V}$) |
|------|--|------|------|--|--|------|---|--|
| | MIN. | TYP. | MAX. | MAX. | TYP. | MAX. | MAX. | MAX. |
| 5Z27 | 24 | 27 | 30 | 30 | 23 | 36 | 1.2 | 10 |
| 5Z30 | 27 | 30 | 33 | 30 | 25 | 40 | 1.2 | 10 |



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