

TOSHIBA ZENER DIODE SILICON DIFFUSED JUNCTION

5Z27, 5Z30

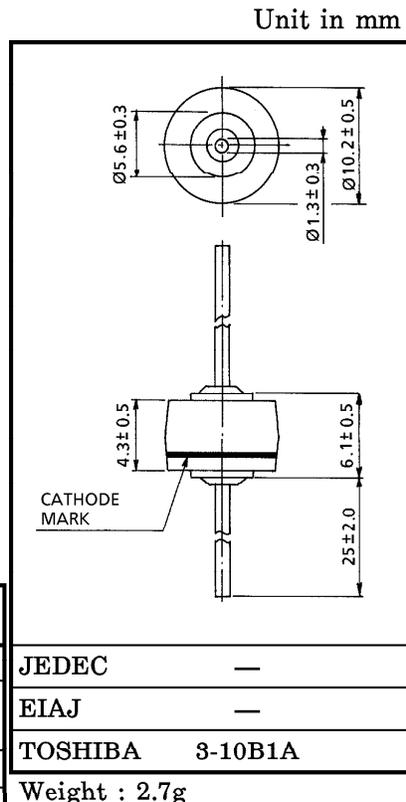
POWER SURGE SUPPRESSOR

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

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

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
 $T_L = 25^\circ\text{C}$

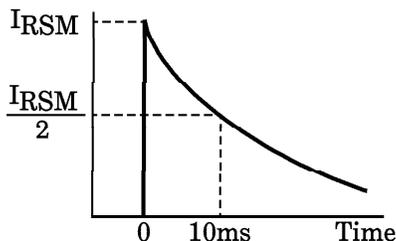


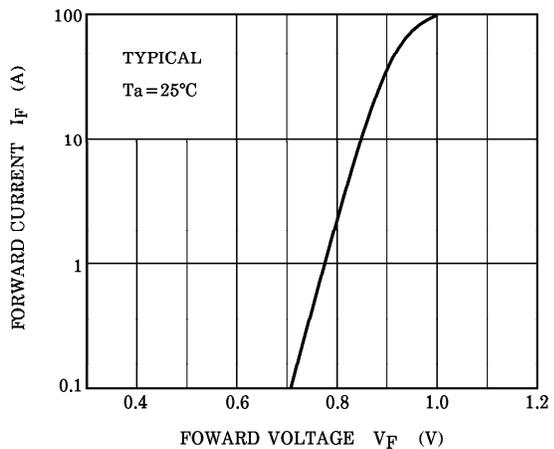
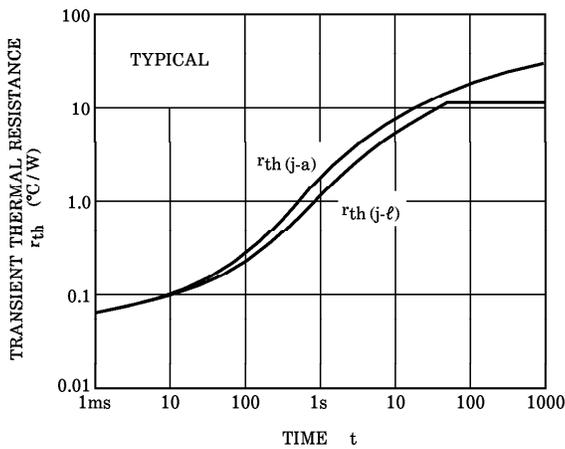
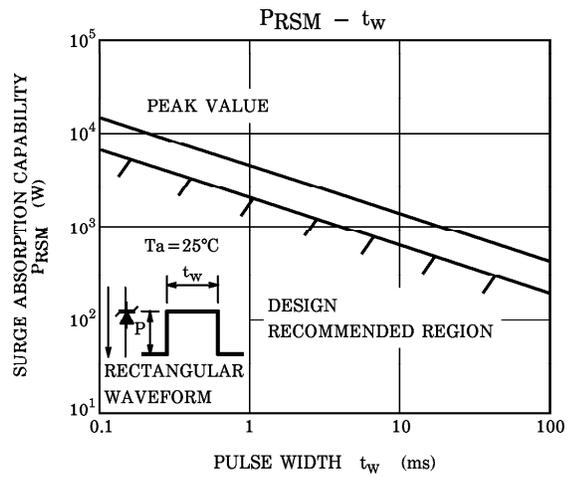
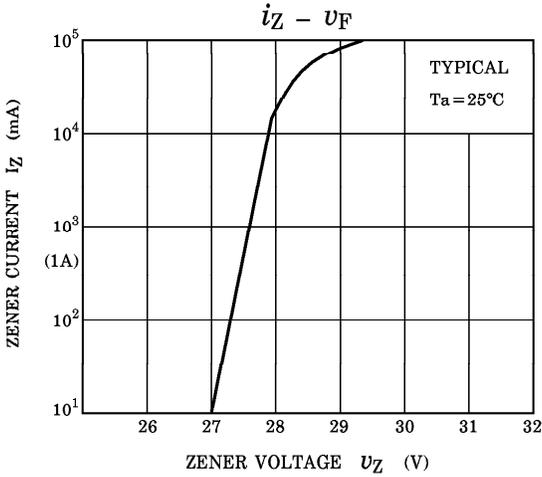
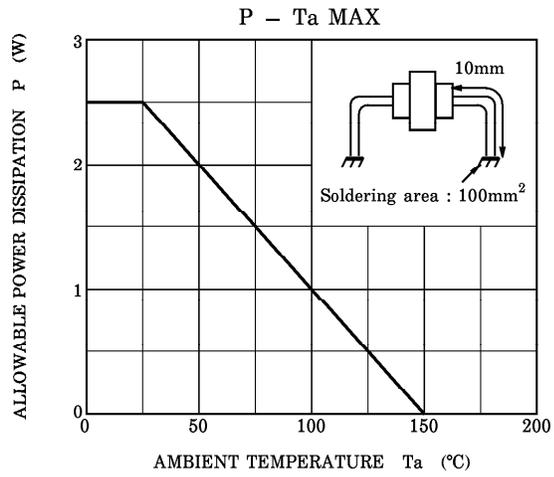
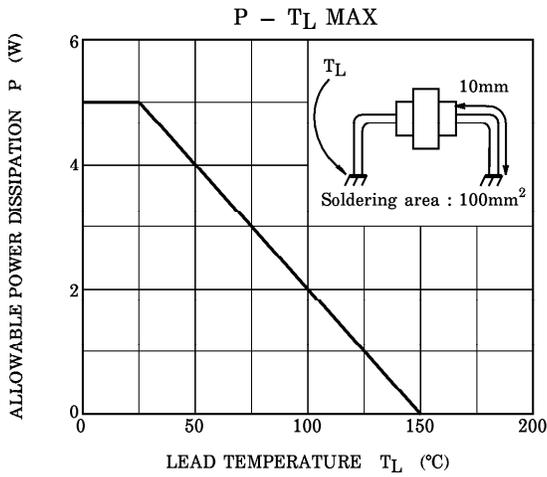
Fig.1

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

961001EAA2

● TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.



961001EAA2'

● The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.

● The information contained herein is subject to change without notice.