DZ2W047

Silicon epitaxial planar type

For constant voltage / waveform clipper and surge absorption circuit
Capability of withstanding a high surge type

■ Features

- Excellent rising characteristics of zener current I_Z
- Low zener operating resistance R_Z
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

■ Packaging

Embossed type (Thermo-compression sealing): 3000 pcs / reel (standard)

■ Package

- Code
  Mini2-F3-B
- Pin Name
  1. Cathode
  2. Anode

■ Marking Symbol: AJ

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Repetitive peak forward current	I_{FRM}	500	mA
Total power dissipation *1	P_T	1	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	–55 to +150	°C
Non-repetitive reverse surge power dissipation *2	P_{ZSM}	100	W

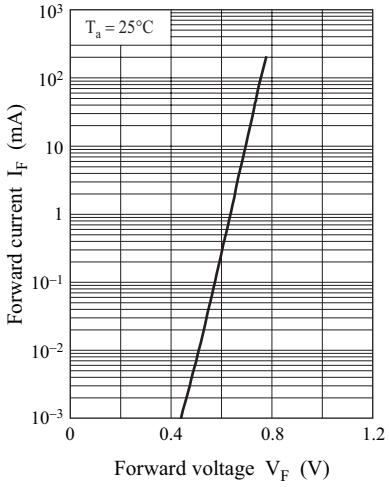
Note) ∗1: Mounted on ceramics print circuit board.
Board size: 50 mm × 50 mm, Board thickness: 0.8 mm, Soldering size: 2 mm × 2 mm
∗2: t = 0.1 ms

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

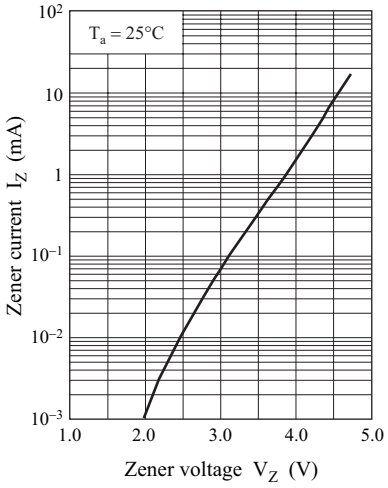
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 200$ mA			1.2	V
Zener voltage *1, 2	V_Z	$I_Z = 20$ mA	4.47	4.70	4.94	V
Zener operating resistance	R_Z	$I_Z = 20$ mA			60	Ω
Reverse current	I_R	$V_R = 1$ V			40	μA
Temperature coefficient of zener voltage *3	S_Z	$I_Z = 20$ mA		– 0.8		mV/°C

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. Absolute frequency of input and output is 5 MHz.
3. ∗1: The temperature must be controlled 25°C for V_Z measurement. V_Z value measured at other temperature must be adjusted to V_Z (25°C)
∗2: V_Z guaranteed 20 ms after current flow.
∗3: T_j = 25°C to 150°C

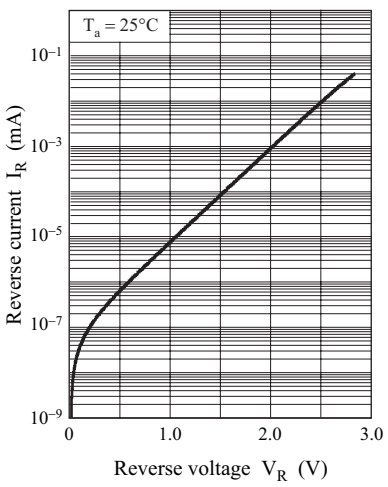
I_F — V_F



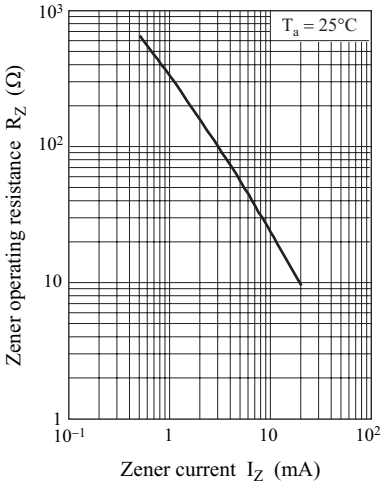
I_Z — V_Z



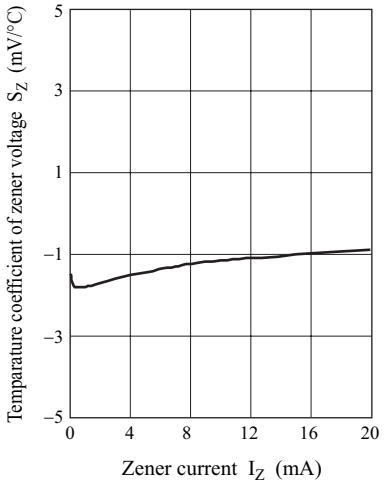
I_R — V_R



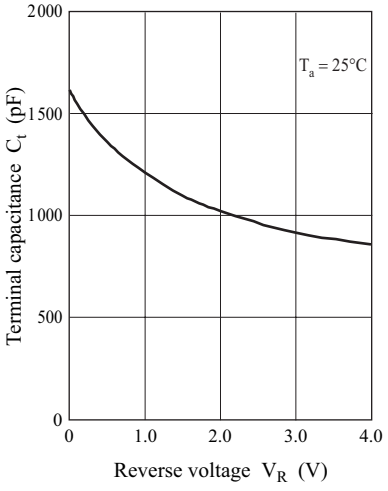
R_Z — I_Z



S_Z — I_Z

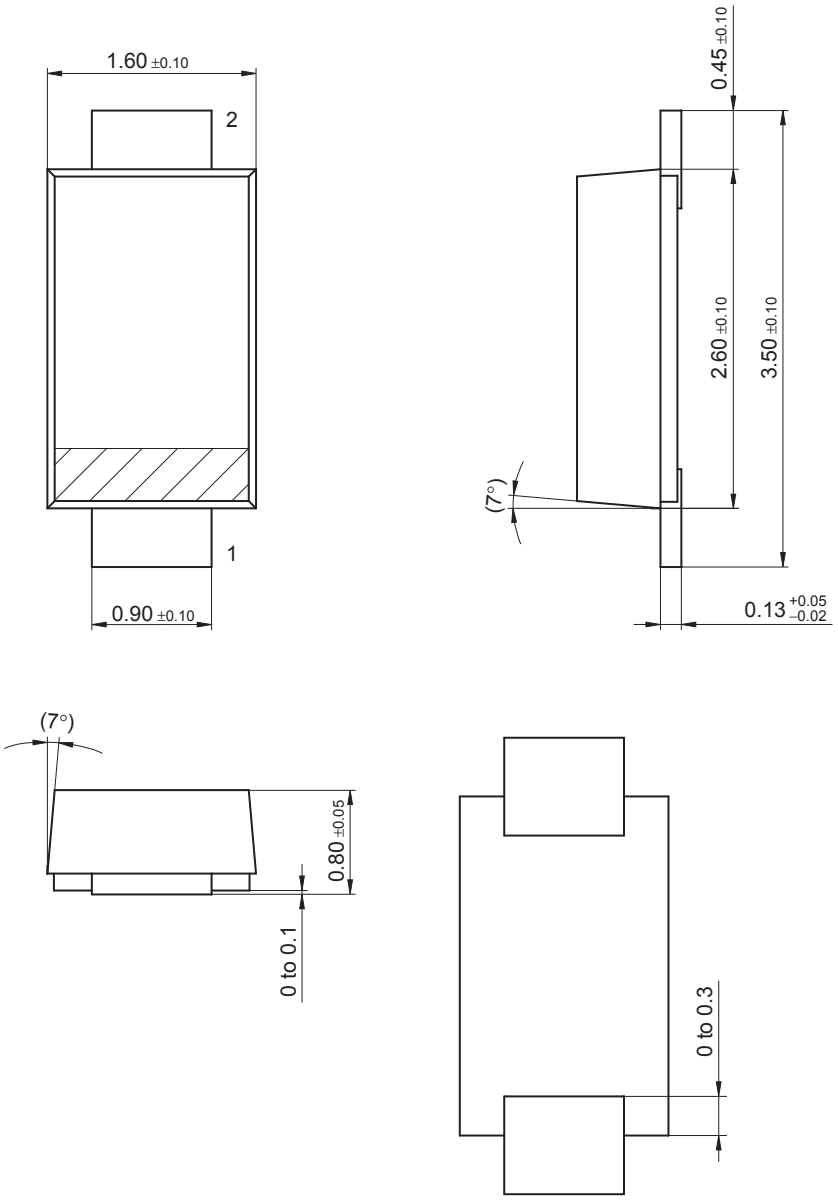


C_t — V_R



Mini2-F3-B

Unit: mm



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