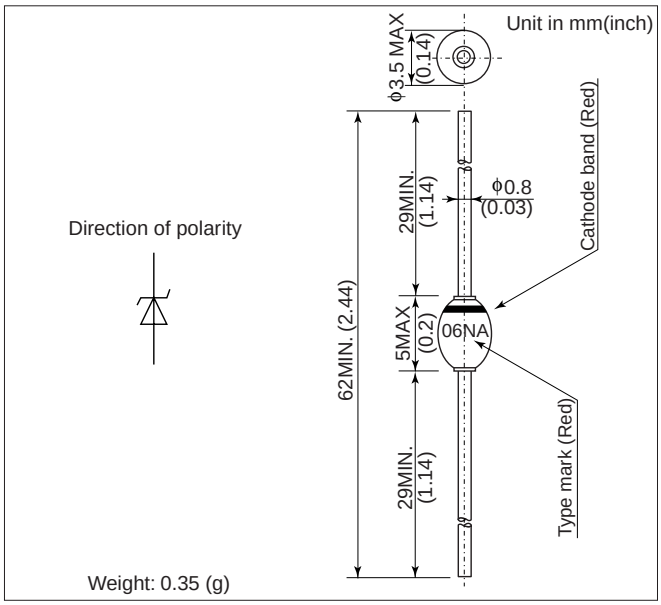
AW01

FEATURES

- For stabilized power supply.
- Diffused-junction. Glass passivated and encapsulated.

OUTLINE DRAWING



ABSOLUTE MAXIMUM RATINGS

Items	Symbols	Units	Ratings
Permissible Power Dissipation	P	W	1.0
Operating Junction Temperature	T_j	°C	-40 ~ +150
Storage Temperature	T_{stg}	°C	-40 ~ +150
Maximum Permissible Current	I_{ZM}	mA	Refer to characteristics column
Non-Repetitive Peak Reverse One-Cycle Dissipation	P_{RSM}	Wp	80

Notes (1) Lead mounting : Lead temperature 300°C max. to 3.2mm from body for 5sec. max..
(2) Mechanical strength : Bending 90°×2 cycles or 180°×1 cycle, Tensile 2kg, Twist 90°×1 cycle.

CHARACTERISTICS(T_L=25°C)

Type	Characteristics				Maximum Permissible Current (TL=100°C) (L=10mm) I_{ZM}(mA)	Typical Zener Voltage Temperature Coefficient γ_Z(%/°C)
	Zener Voltage Vz (V)		Maximum Dynamic Impedance Zz (ohm)	Test Current Iz (mA)		
	Minimum	Maximum				
AW01-06	5.2	6.8	9	60	160	0.025
AW01-07	6.2	7.9	7	25	135	0.035
AW01-08	7.7	8.7	3	25	120	0.045
AW01-09	8.5	9.6	3	25	105	0.053
AW01-10	9.4	10.6	5	25	95	0.058
AW01-11	10.4	11.6	5	25	85	0.063
AW01-12	11.4	12.7	8	25	75	0.065
AW01-13	12.4	14.1	8	25	70	0.068
AW01-15	13.5	15.6	12	15	65	0.072
AW01-16	15.3	17.1	12	15	60	0.074
AW01-18	16.8	19.1	15	15	52	0.076
AW01-20	18.8	21.2	15	15	48	0.078
AW01-22	20.8	23.3	15	15	43	0.080
AW01-24	22.7	25.6	15	10	40	0.081
AW01-27	25.1	28.9	15	10	35	0.082
AW01-30	28.0	32.0	15	10	32	0.083
AW01-33	31.0	35.0	15	10	30	0.084

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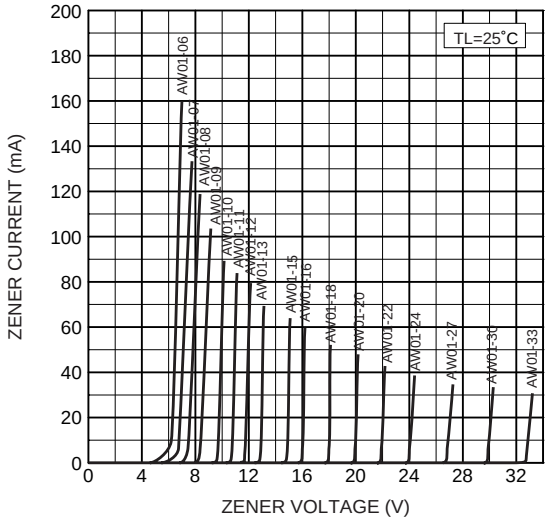
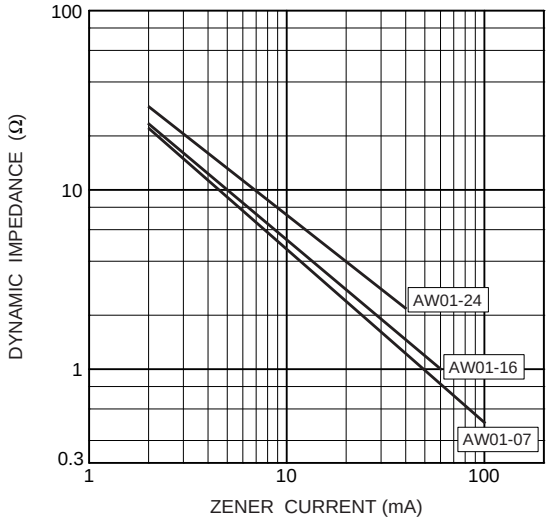
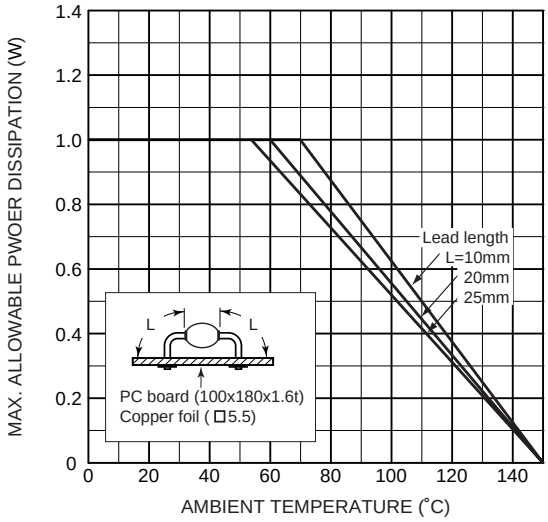
Typical zener characteristics



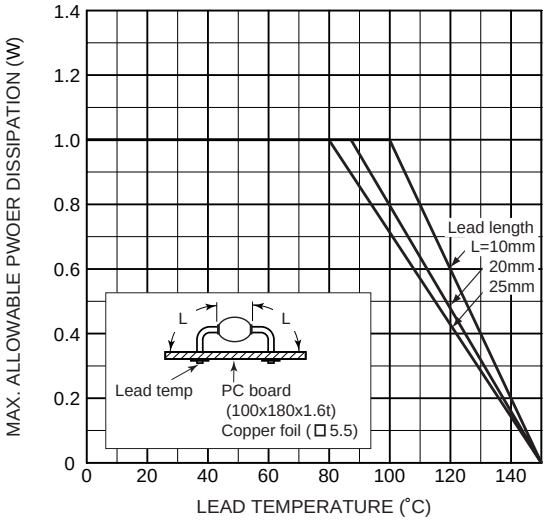
Typical dynamic impedance vs. zener current



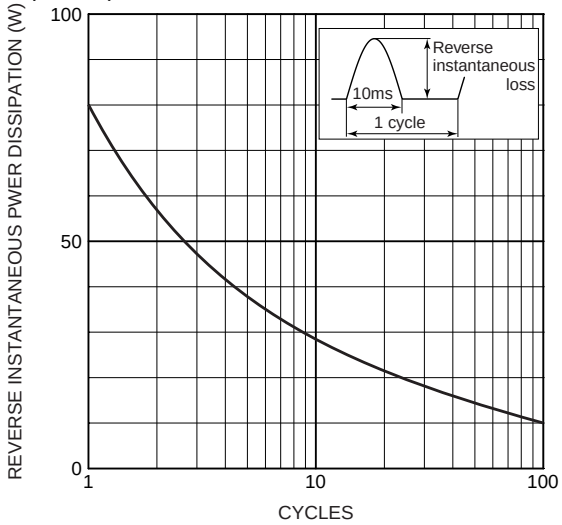
Max. allowable power dissipation vs. ambient temperature



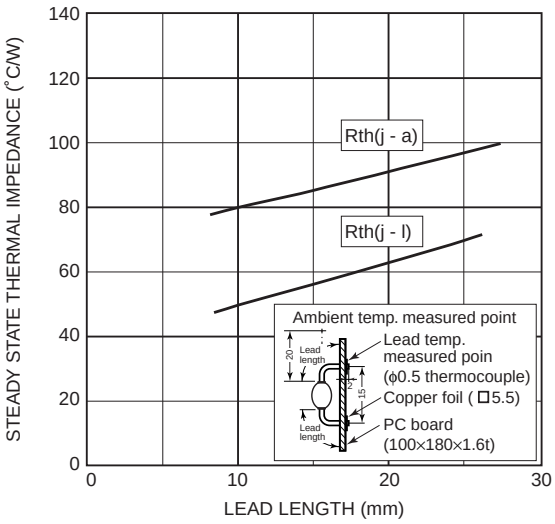
Max. allowable power dissipation vs. lead temperature



Reverse power characteristic
(Non-repetitive)



Steady state thermal impedance



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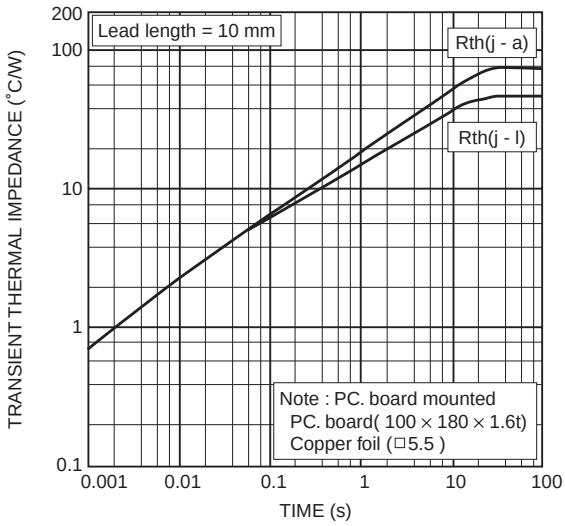
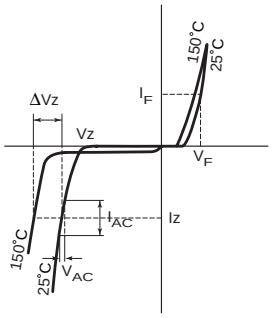
Transient thermal impedance



Definition of zener characteristics



ΔV_Z:Zener voltage change
V_Z :Zener voltage (Test current I_Z)
I_Z :Test current
Z_Z :Dynamic impedance=V_{AC} / I_{AC}
I_F :Forward current
V_F :Forward voltage drop
γz :Zener voltage average temperature coefficients

$$= \frac{\Delta Vz}{Vz} \times \frac{1}{(150\text{-}25)} \times 100$$

HITACHI POWER SEMICONDUCTORS

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