

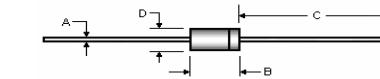
## 500 mW DO-35 Hermetically Sealed Glass Zener Voltage FY[ i `Uhcfg



**Absolute Maximum Ratings**  $T_A = 25^\circ\text{C}$  unless otherwise noted

Parameter	Value	Units
Power Dissipation	500	mW
Storage Temperature Range	-65 to +175	°C
Operating Junction Temperature	+175	°C

These ratings are limiting values above which the serviceability of the diode may be impaired.



DIM	DO-35			
	Millimeters		Inches	
A	Min	Max	Min	Max
B	0.46	0.55	0.018	0.022
C	3.05	5.08	0.120	0.200
D	25.40	38.10	1.000	1.500
D'	1.53	2.28	0.060	0.090

### Specification Features:

- Zener Voltage Range 2.0 to 75 Volts
- DO-35 Package (JEDEC)
- Through-Hole Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All External Surfaces Are Corrosion Resistant And Leads Are Readily Solderable
- RoHS Compliant
- Solder Hot Dip Tin (Sn) Terminal Finish
- Cathode Indicated By Polarity Band



ELECTRICAL SYMBOL

**Electrical Characteristics**  $T_A = 25^\circ\text{C}$  unless otherwise noted

Device Type	$V_z @ I_{ZT}$ (Volts) Nominal	$I_{ZT}$ (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	$I_R @ V_R$ (μA) Max	$V_R$ (Volts)
HG2V0	2.0	5	100	120	0.5
HG2V2	2.2	5	100	120	0.7
HG2V4	2.4	5	100	120	1
HG2V7	2.7	5	110	100	1
HG3V0	3.0	5	120	50	1
HG3V3	3.3	5	120	20	1
HG3V6	3.6	5	100	10	1
HG3V9	3.9	5	100	5	1
HG4V3	4.3	5	100	5	1
HG4V7	4.7	5	80	5	1
HG5V1	5.1	5	80	5	1.5
HG5V6	5.6	5	60	5	2.5
HG6V2	6.2	5	60	5	3
HG6V8	6.8	5	20	2	3.5
HG7V5	7.5	5	20	0.5	4
HG8V2	8.2	5	20	0.5	5
HG9V1	9.1	5	25	0.5	6
HG10V	10	5	30	0.2	7
HG11V	11	5	30	0.2	8
HG12V	12	5	30	0.2	9

**Electrical Characteristics** $T_A = 25^\circ\text{C}$  unless otherwise noted

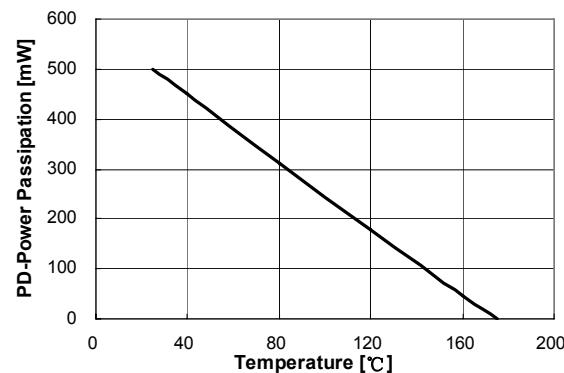
Device Type	$V_z @ I_{ZT}$ (Volts) Nominal	$I_{ZT}$ (mA)	$Z_{ZT} @ I_{ZT}$ ( $\Omega$ ) Max	$I_R @ V_R$ ( $\mu\text{A}$ ) Max	$V_R$ (Volts)
HG13V	13	5	35	0.2	10
HG15V	15	5	40	0.2	11
HG16V	16	5	40	0.2	12
HG18V	18	5	45	0.2	13
HG20V	20	5	45	0.2	15
HG22V	22	5	30	0.2	17
HG24V	24	5	35	0.2	19
HG27V	27	2	45	0.2	21
HG30V	30	2	55	0.2	23
HG33V	33	2	65	0.2	25
HG36V	36	2	75	0.2	27
HG39V	39	2	85	0.2	30
HG43V	43	2	90	0.2	33
HG47V	47	2	90	0.2	36
HG51V	51	2	110	0.2	39
HG56V	56	2	110	0.2	43
HG62V	62	2	201	0.2	47
HG68V	68	2	230	0.2	51
HG75V	75	2	240	0.2	56

 $V_F$  Forward Voltage = 1.2 V Maximum @  $I_F$  = 200 mA for all types**Notes:****1. TOLERANCE AND VOLTAGE DESIGNATION**The type numbers listed have zener voltage as shown and have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .**2. SPECIALS AVAILABLE INCLUDE**

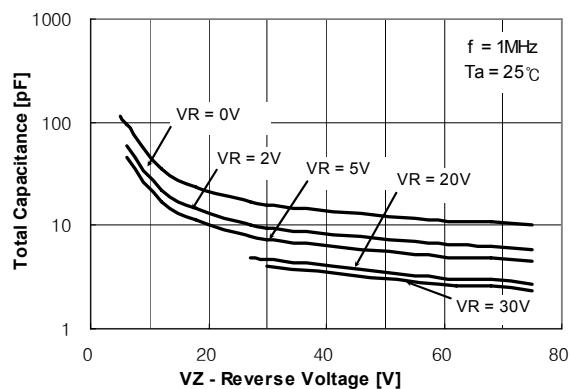
Nominal zener voltages between the voltages shown and tighter voltage, for detailed information on price, availability and delivery, contact you nearest Tak Cheong representative.

**3. ZENER VOLTAGE ( $V_z$ ) MEASUREMENT**The zener voltage is measured under pulse conditions such that  $T_J$  is no more than  $2^\circ\text{C}$  above  $T_A$ .**4. ZENER IMPEDANCE ( $Z_z$ ) DERIVATION**Zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an RMS value equal to 10% of the dc zener current ( $I_{ZT}$ ) is superimposed to  $I_{ZT}$ .

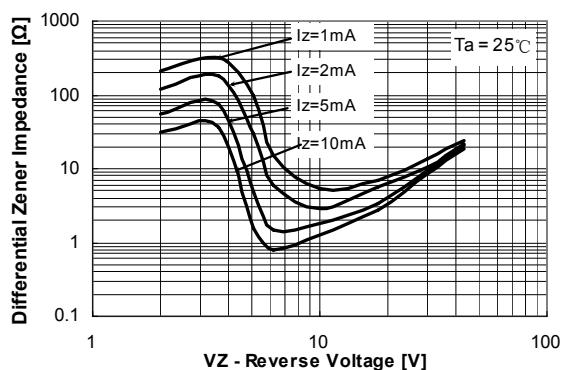
## Typical Characteristics



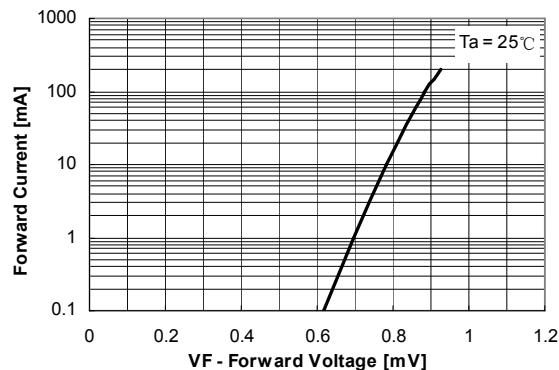
**Figure 1. Power Dissipation vs Ambient Temperature**  
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature



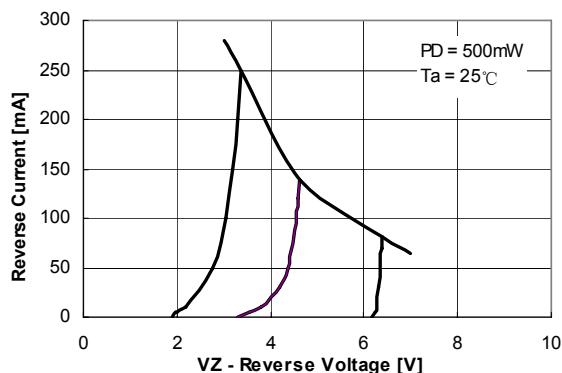
**Figure 2. Total Capacitance**



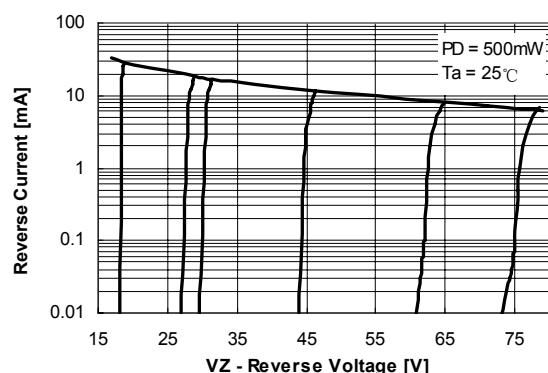
**Figure 3. Differential Impedance vs. Zener Voltage**



**Figure 4. Forward Current vs. Forward Voltage**



**Figure 5. Reverse Current vs. Reverse Voltage**



**Figure 6. Reverse Current vs. Reverse Voltage**