

# REFERENCE DIODE 1SZ45A ~ 1SZ48

NEC Type 1SZ45A ~ 1SZ48 are DHD (Double Heatsink Diode) construction planar type high stability reference diodes.

**FEATURES**

- DHD (Double Heatsink Diode) Construction
- Planar process
- High Stability and High Reliability
- Low zener current ( $I_z = 1\text{mA}$ )
- DO-35 Glass sealed package

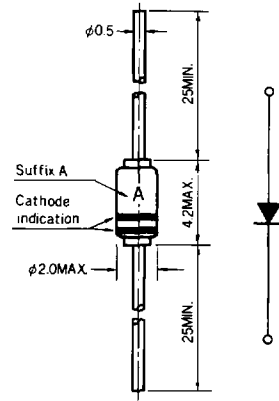
**APPLICATIONS**

Circuits for,  
Constant Voltage, Constant Current

**MAXIMUM RATINGS**

Power Dissipation (P) ..... 250mW (See Fig. 1)  
 Junction Temperature ( $T_j$ ) ..... 175°C  
 Storage Temperature ( $T_{stg}$ ) ..... -65 ~ +175°C

**OUTLINE DRAWING** (Unit : mm)



**Color Code**

Black	Red	Green	Blue
1SZ45A	1SZ46A	1SZ47A	—
—	—	1SZ47	1SZ48

**ELECTRICAL CHARACTERISTICS ( $T_a = 25 \pm 2^\circ\text{C}$ )**

Type	Zener Voltage $V_z$ (V)		Zener Impedance $Z_z$ ( $\Omega$ )	Zener Current $I_z$ (mA)	$V_z$ Temperature Coefficient $\gamma_z$ (%/°C)	Temperature Range $T_a$ (°C)
	Min.	Max.	Max.		Max.	
1SZ45A	6.1	6.7	100	1	$\pm 0.01$	-40 ~ 100
1SZ46A					$\pm 0.005$	
1SZ47A					$\pm 0.002$	
1SZ47					$\pm 0.002$	
1SZ48					$\pm 0.001$	-10 ~ 60

Fig. 1 P - T<sub>a</sub> Rating

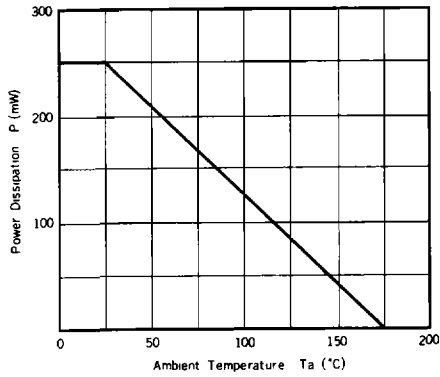


Fig. 2 γ<sub>Z</sub> - V<sub>Z</sub> Characteristic

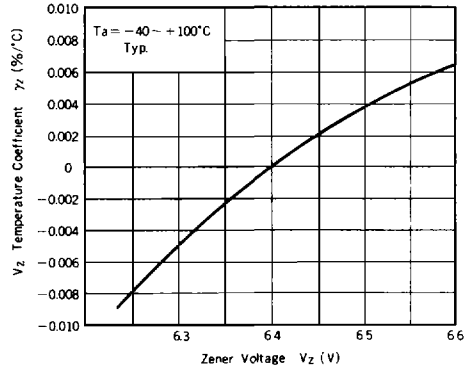


Fig. 3 γ<sub>Z</sub> - I<sub>Z</sub> Characteristic

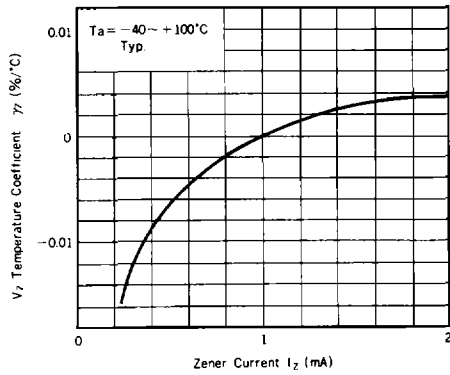


Fig. 4 Z<sub>Z</sub> - I<sub>Z</sub> Characteristic

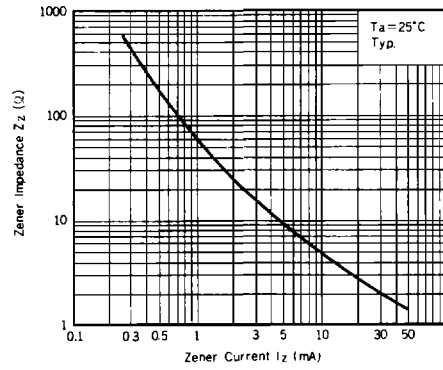


Fig. 5 ΔV<sub>Z</sub> - I<sub>Z</sub> Characteristic

