

BEST SUITED FOR OVERVOLTAGE PROTECTION  
OF ELECTRONIC SYSTEM :  
ELECTRONIC SYSTEM FOR USE IN AUTOMOBILES  
ELECTRONIC SYSTEM FOR COMMERCIAL USE  
ELECTRONIC SYSTEM FOR INDUSTRIAL USE  
FOR COMMUNICATIONS, CONTROLS, MEASURING  
INSTRUMENTS, ETC.

#### FEATURES

- Excellent clamp voltage characteristics that protect electronic system from any kind of surge.
- High surge power withstanding capabilities that absorb load dump surge.
- Excellent surge responsibility for steep surge absorption.
- Surface mount type is available for easy applications.  
Zxial lead type is also available.
- Although the typical zener voltage is  $V_Z=37V$ ,  
we can provide the products other than the typical values.
- Corresponds to taping packages. (500P/Reel)
- Automotive AEC Q101 Qualified.
- MSL Level 1 guaranteed ( $T_{peak} = 260^\circ C$ )

#### MAXIMUM RATING ( $T_a=25^\circ C$ )

| CHARACTERISTIC                                                                 | SYMBOL    | RATING         | UNIT       |
|--------------------------------------------------------------------------------|-----------|----------------|------------|
| Allowable Power Dissipation<br>(Note 1)                                        | P         | 4              | W          |
| Non-Repetitive Peak Reverse<br>Surge Current<br>(See Fig.1 for the exponents.) | $I_{RSM}$ | 50             | A          |
| Junction Temperature                                                           | $T_j$     | $-55 \sim 175$ | $^\circ C$ |
| Storage Temperature Range                                                      | $T_{stg}$ | $-40 \sim 150$ | $^\circ C$ |

Note 1 : Lead tip temperature  $T_L=25^\circ C$ .

#### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$ )

| CHARACTERISTIC          | SYMBOL     | TEST CONDITION | MIN. | TYP. | MAX. | UNIT           |
|-------------------------|------------|----------------|------|------|------|----------------|
| Zener Voltage           | $V_Z$      | $I_Z=10mA$     | 34   | 37   | 40   | V              |
| Operating Resistance    | $r_d$      | $I_Z=10mA$     | -    | -    | 35   | $\Omega$       |
| Temperature Coefficient | $\alpha_T$ | $I_Z=10mA$     | -    | 31   | 49   | mV/ $^\circ C$ |
| Forward Voltage         | $V_F$      | $I_F=6A$       | -    | -    | 1.2  | V              |
| Reverse Current         | $I_R$      | $V_R=32V$      | -    | -    | 10   | $\mu A$        |

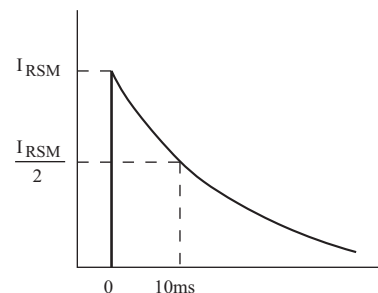
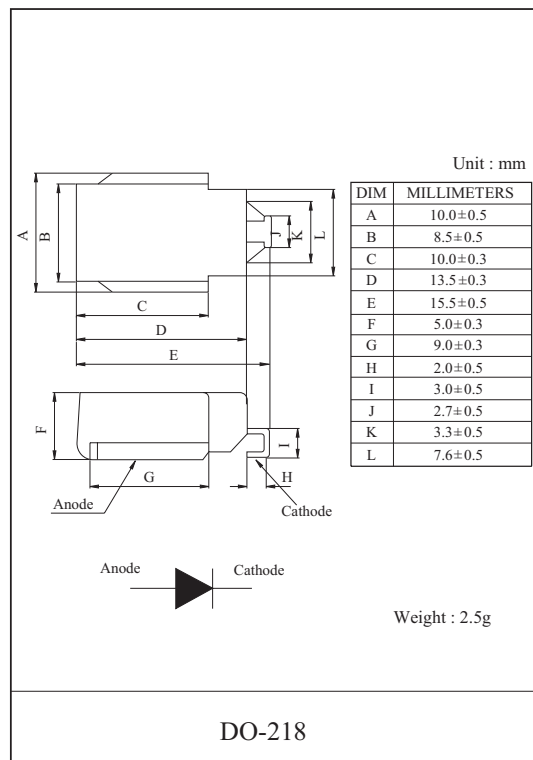
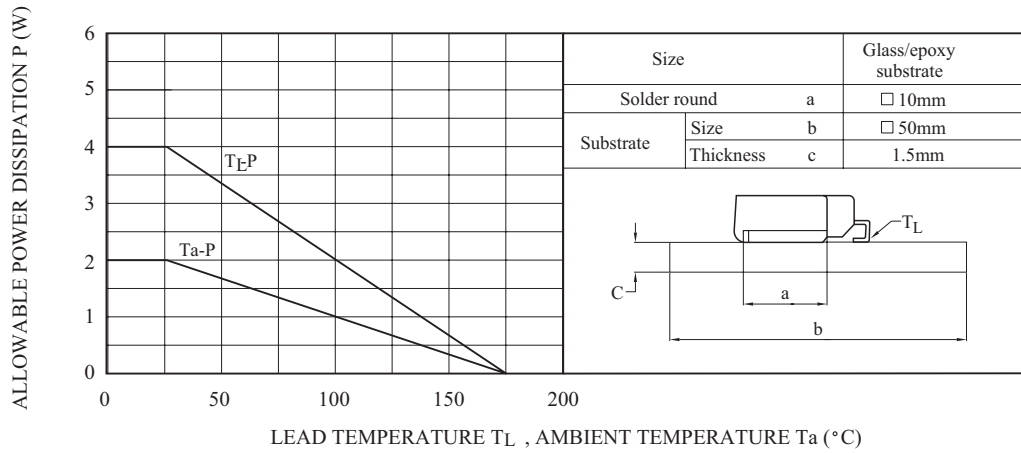


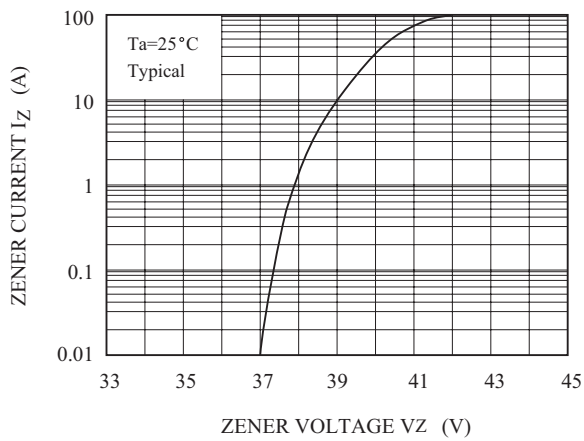
Fig. 1

# Z4W37V

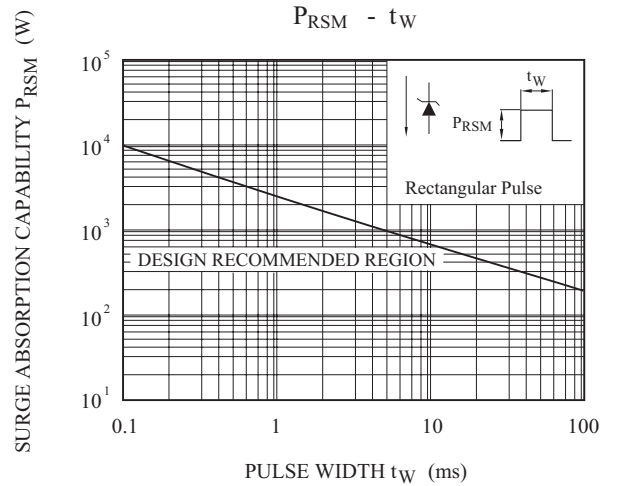
P -  $T_L$ ,  $T_a$



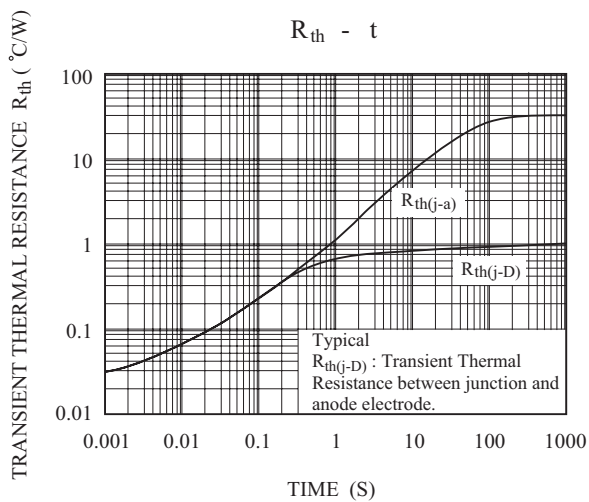
$I_Z$  -  $V_Z$



$P_{RSM}$  -  $t_W$



$R_{th}$  - t



$I_F$  -  $V_F$

