

**BEST SUITED FOR OVERVOLTAGE PROTECTION
OF ELECTRONIC SYSTEM :**

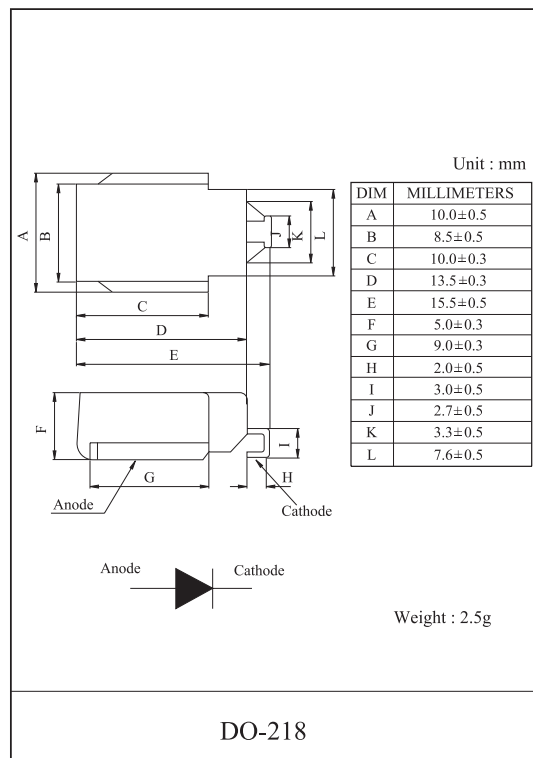
ELECTRONIC SYSTEM FOR USE IN AUTOMOBILES

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.
Axial 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.
- JASO D001-94 : A-1 Qualified.
- International Organization for standardization ISO 7637 : 5a Qualified.
- MSL Level 1 guaranteed ($T_{peak} = 260^{\circ}C$)

**MAXIMUM RATING ($T_a=25^{\circ}C$)**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Allowable Power Dissipation (Note 1)	P	8	W
Peak Pulse Power Dissipation With 10/1,000us wave form	P_{PPM}	6,600	W
Peak Pulse Power Dissipation With 10/10,000us wave form	P_{PPM}	5,200	W
Non-Repetitive Peak Reverse Surge Current (See Fig.1 for the exponents.)	I_{RSM}	120	A
Operating Junction Temperature	T_j	-55 175	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 175	$^{\circ}C$

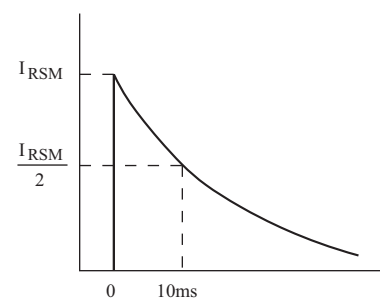
Note 1 : Lead tip temperature $T_L=25^{\circ}C$.

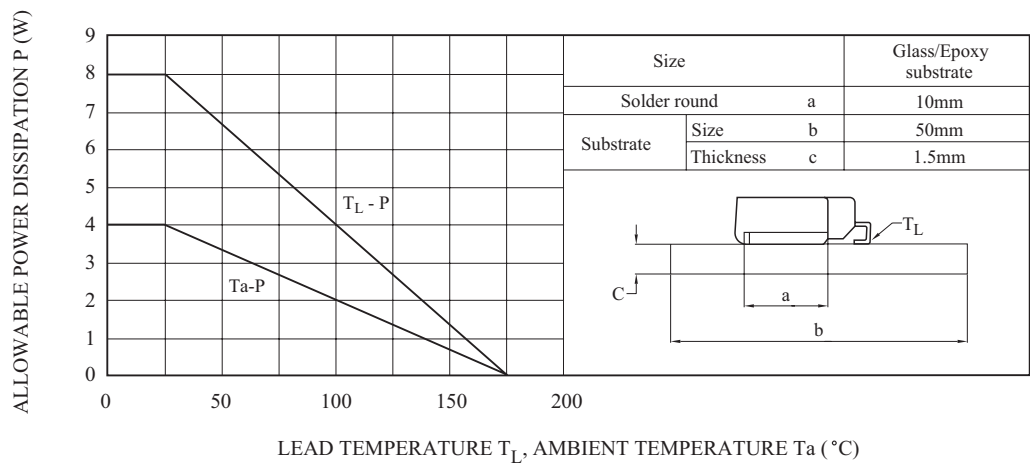
Fig 1.

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

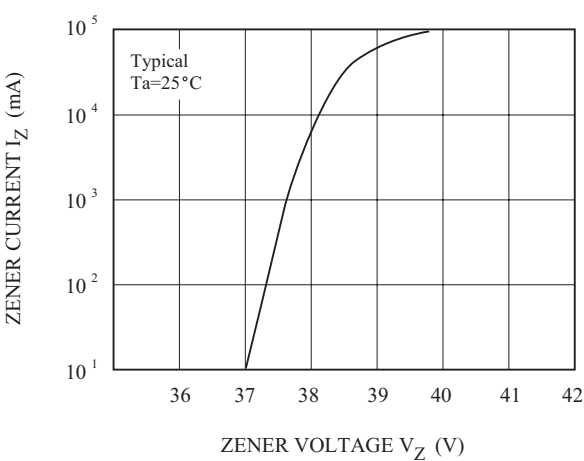
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Zener Voltage	V_Z	$I_Z=10mA$	24.0	27.0	30.0	V
Operating Resistance	r_d	$I_Z=10mA$	-	-	30	Ω
Temperature Coefficient	α_f	$I_Z=10mA$	-	23	36	$mV/^{\circ}C$
Forward Voltage	V_F	$I_F=6A$	-	-	0.95	V
		$I_F=100A$	-	-	1.05	V
Reverse Current	I_R	$V_R=22V$	-	-	10	μA
Clamping Voltage	V_C	$I_{RSM}=75A$	-	-	40	V

Z8W27V

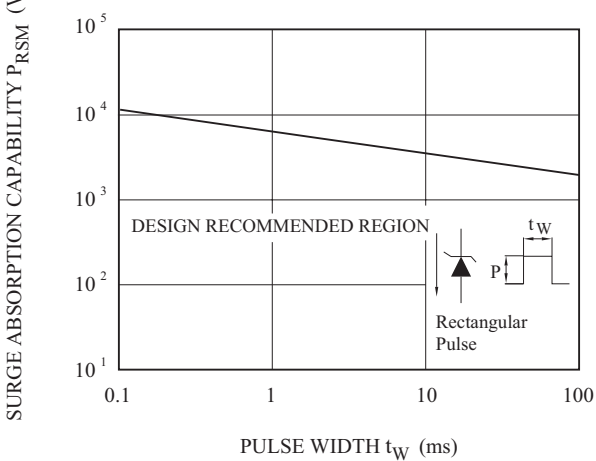
P - T_L , T_a



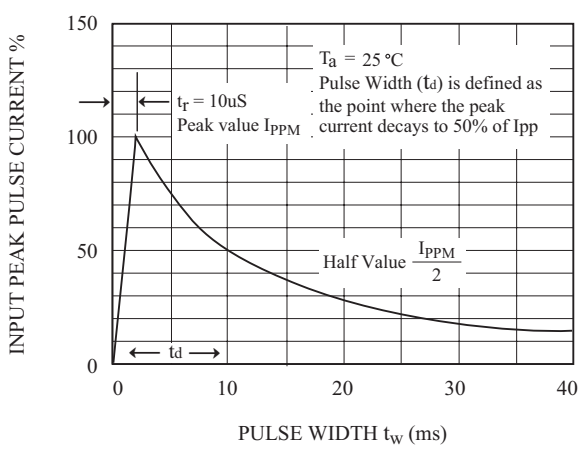
$I_Z - V_Z$



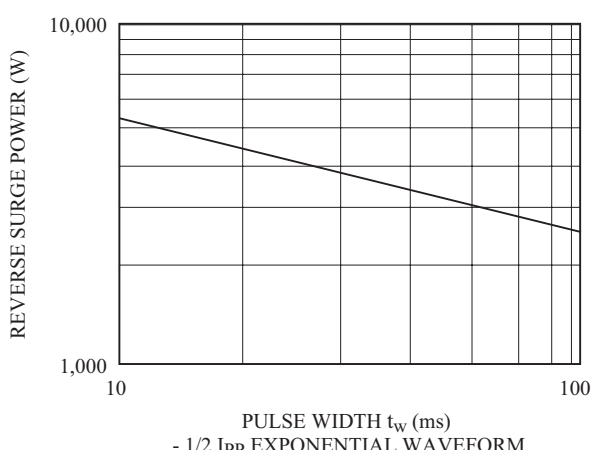
$P_{RSM} - t_w$



PULSE WAVEFORM



REVERSE POWER CAPABILITY



Z8W27V

