

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 $V_Z=27V$, 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 (Note 1)	P	5	W
Peak Pulse Power Dissipation With 10/1,000 μS wave form	P_{PP}	3,600	W
Non-Repetitive Peak Reverse Surge Current (See Fig.1 for the exponents.)	I_{RSM}	70	A
Operating Junction Temperature	T_j	-55 ~ 175	$^\circ C$
Storage Temperature Range	T_{stg}	-40 ~ 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	$I_Z=10mA$	24.0	27	30.0	V
Operating Resistance	r_d	$I_Z=10mA$	-	-	30	Ω
Temperature Coefficient	α_T	$I_Z=10mA$	-	23	36	mV/ $^\circ C$
Forward Voltage	V_F	$I_F=6A$	-	-	1.0	V
		$I_F=100A$	-	-	1.2	V
Reverse Current	I_R	$V_R=22V$	-	-	10	μA
Clamping Voltage	V_C	$I_{RSM}=55A$	-	-	40	V

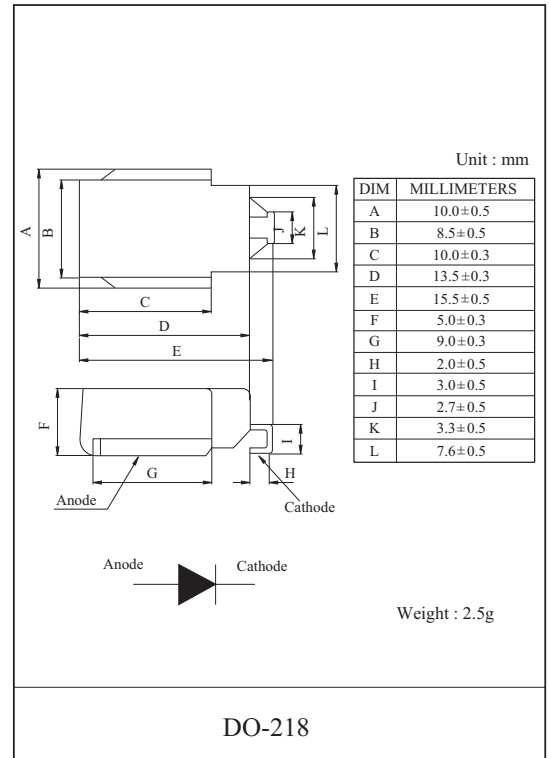
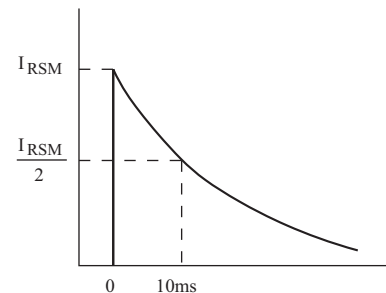
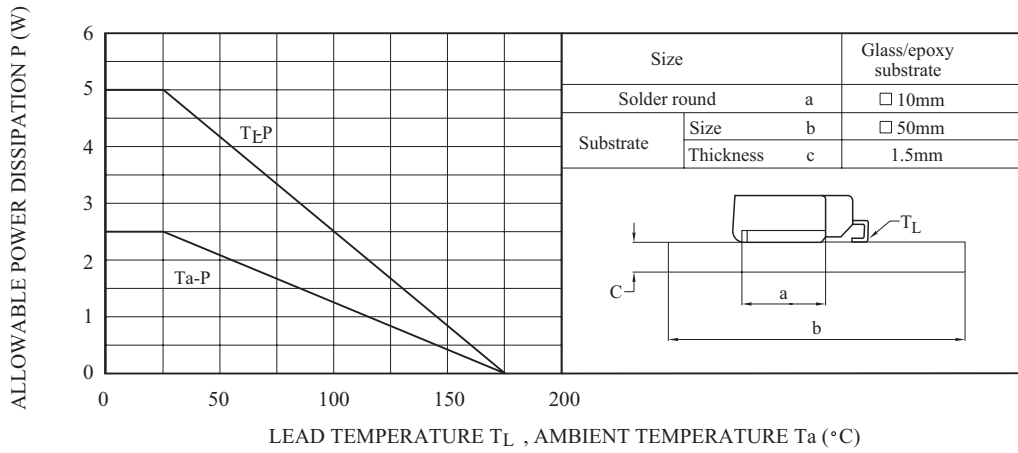


Fig. 1

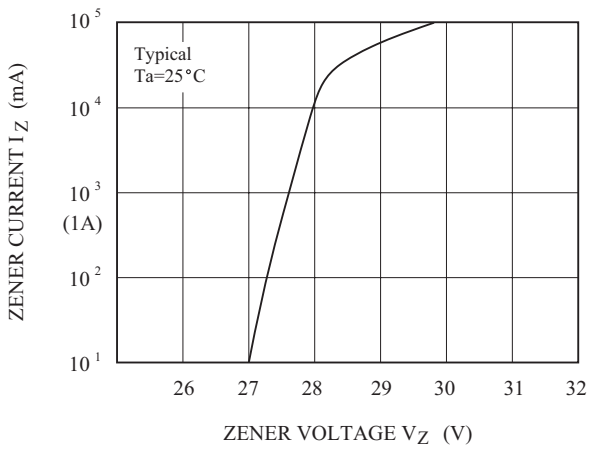


Z5W27V

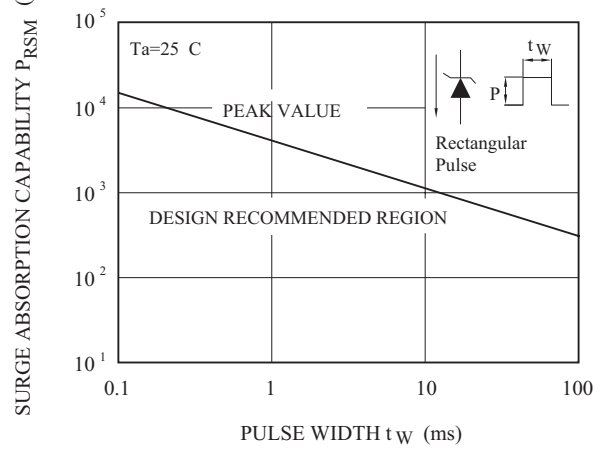
P - T_L , T_a



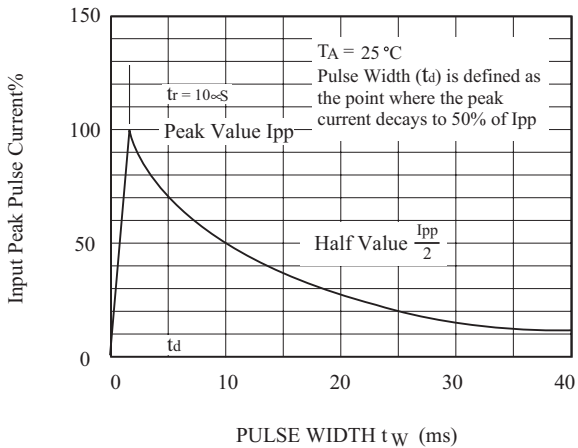
I_Z - V_Z



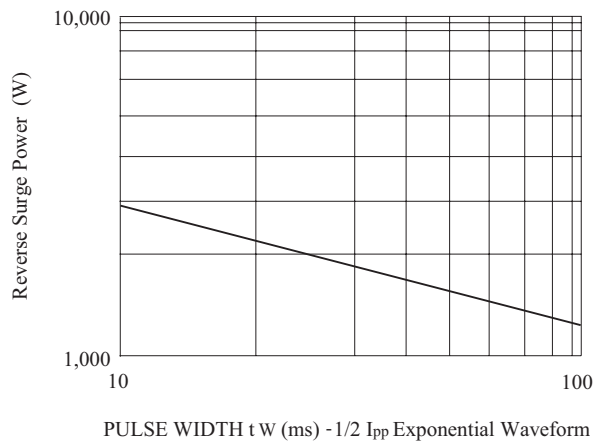
P_{RSM} - t_w



Pulse Waveform



Reverse Power Capability



Z5W27V

