Z8W37V

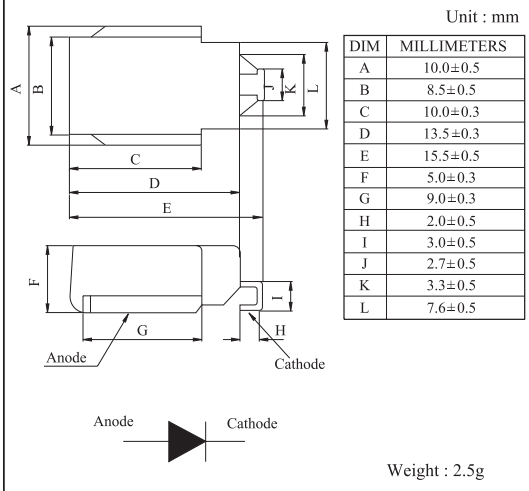
ZENER DIODE SILICON DIFFUSED-JUNCTION TYPE

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.
- MSL Level 1 guaranteed (Tpeak = 260℃)



DIM	MILLIMETERS
A	10.0±0.5
B	8.5±0.5
C	10.0±0.3
D	13.5±0.3
E	15.5±0.5
F	5.0±0.3
G	9.0±0.3
H	2.0±0.5
I	3.0±0.5
J	2.7±0.5
K	3.3±0.5
L	7.6±0.5

DO-218

MAXIMUM RATING (Ta=25℃)

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}	100	A
Operating Junction Temperature	T_j	-55 175	℃
Storage Temperature Range	T_{stg}	-55 175	℃

Note 1 : Lead tip temperature T_L=25℃.

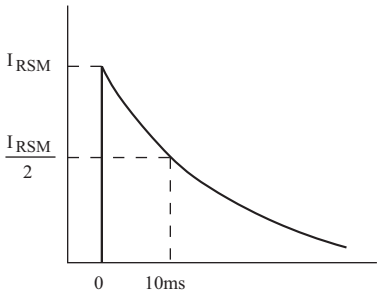
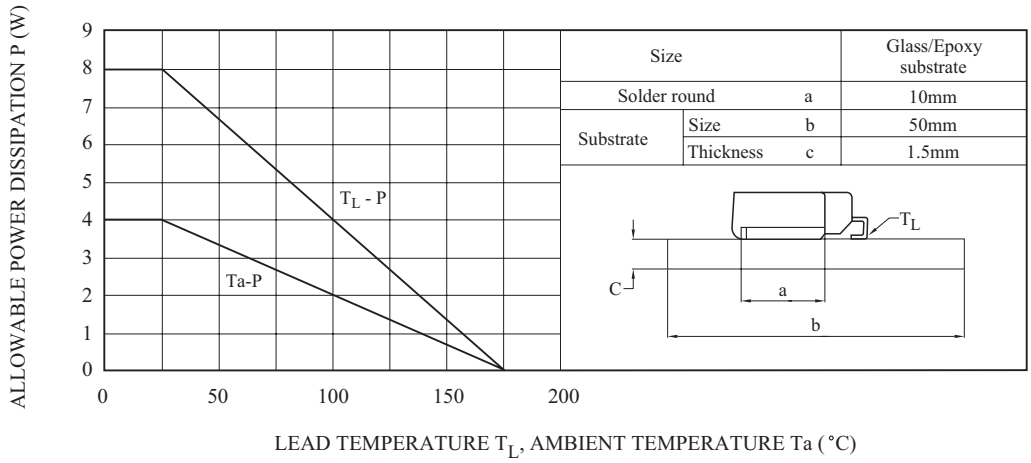


Fig 1.

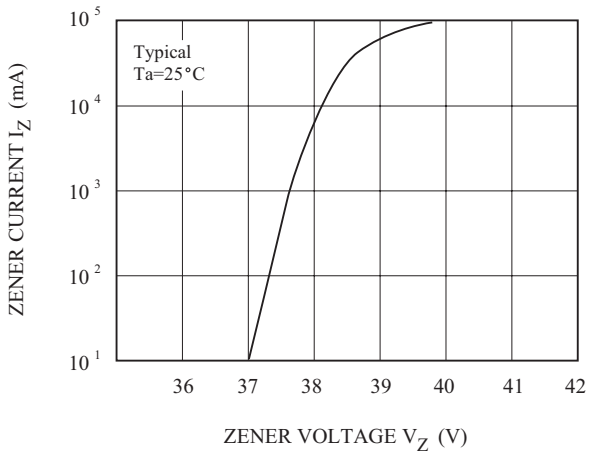
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Zener Voltage	V_Z	I_Z=10mA	34.0	37.0	40.0	V
Operating Resistance	r_d	I_Z=10mA	-	-	30	Ω
Temperature Coefficient	α_T	I_Z=10mA	-	23	36	mV/℃
Forward Voltage	V_F	I_F=6A	-	-	1.0	V
		I_F=100A	-	-	1.1	V
Reverse Current	I_R	V_R=32V	-	-	10	μA
Clamping Voltage	V_C	I_{RSM}=75A	-	-	50	V

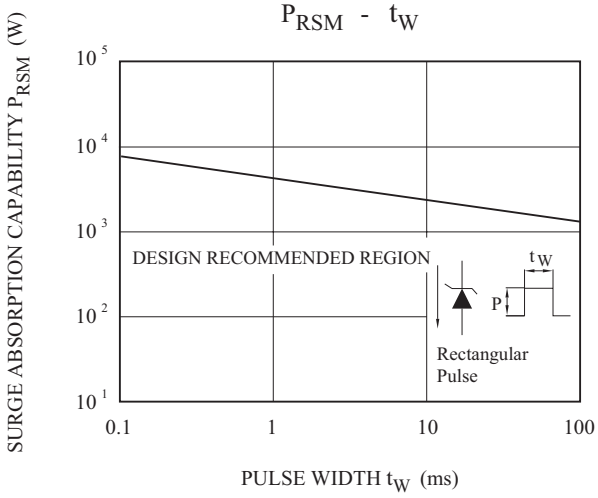
P - T_L, Ta



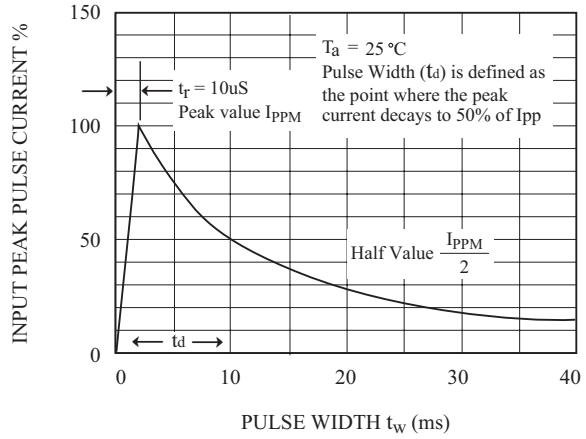
I_Z - V_Z



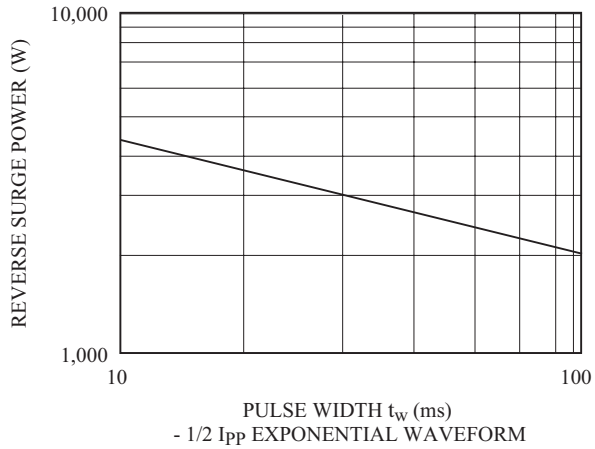
P_{RSM} - t_W



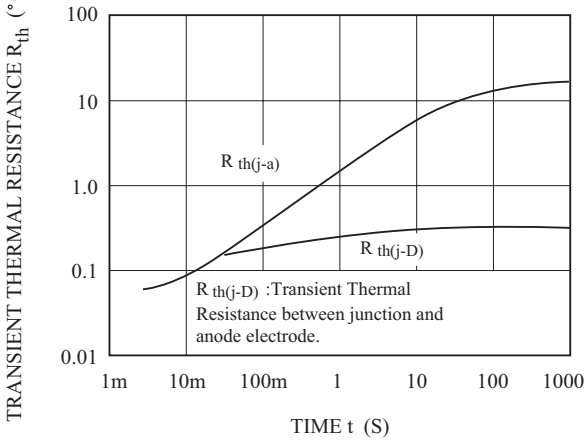
PULSE WAVEFORM



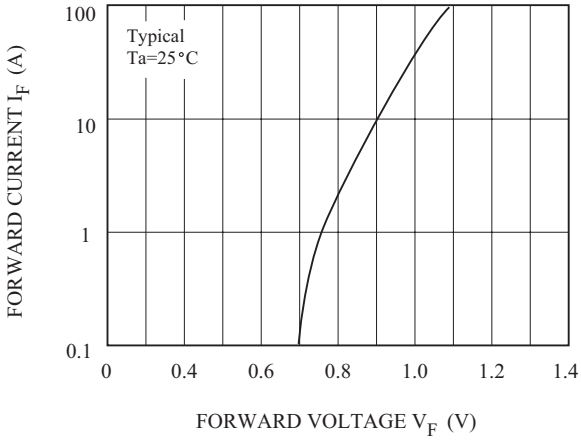
REVERSE POWER CAPABILITY



R_{th} - t



I_F - V_F



LOAD DUMP POWER CHARACTERISTICS
(10ms EXPONENTIAL WAVEFORM)