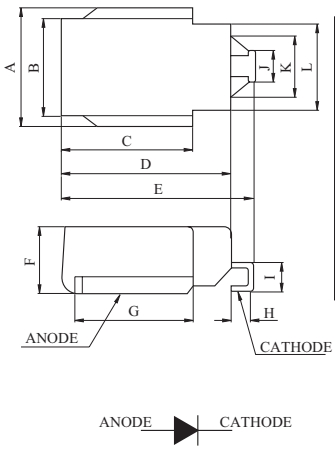
Z5W48V

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

- 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.
- Corresponds to taping packages.
- 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

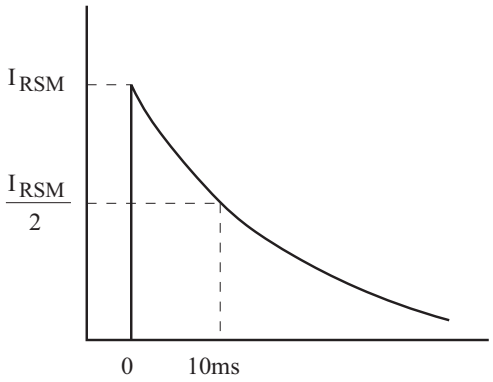
Weight : 2.5g

DO-218

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Allowable Power Dissipation (Note 1)	P	5	W
Non-Repetitive Peak Reverse Surge Current (See Fig.1 for the exponents.)	I_{RSM}	50	A
Peak 1-Cycle Surge Forward Current (Single Half Sine-wave, t=10ms)	I_{FSM}	700	A
Junction Temperature	T_j	-55 ~ 175	℃
Storage Temperature Range	T_{stg}	-40 ~ 150	℃

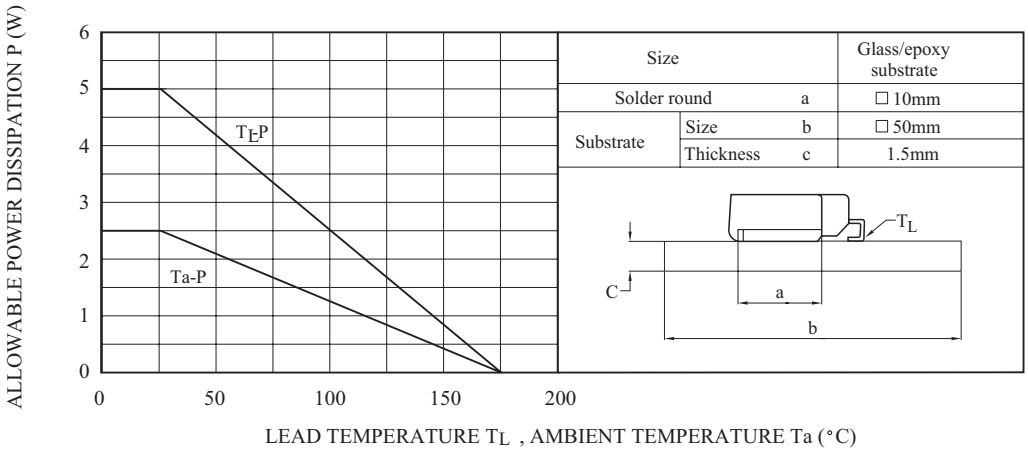
Note 1 : Lead tip temperature T_L=25℃.



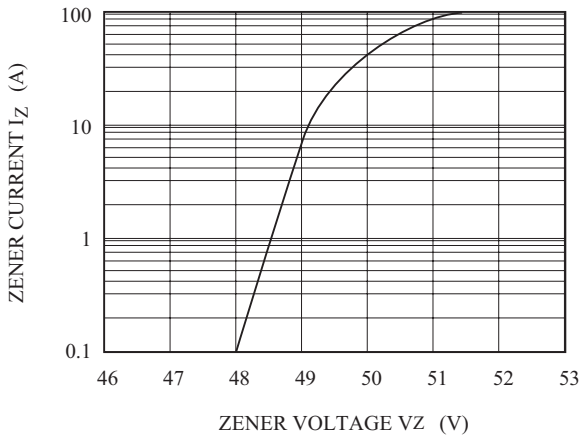
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Zener Voltage	V_Z	I_Z=10mA	43.2	48.0	52.8	V
Operating Resistance	r_d	I_Z=10mA	-	-	65	Ω
Temperature Coefficient	α_T	I_Z=10mA	-	39	62	mV/℃
Forward Voltage	V_F	I_F=6A	-	-	1.0	V
		I_F=100A	-	-	1.2	V
Reverse Current	I_R	V_R=38.4V	-	-	10	μA

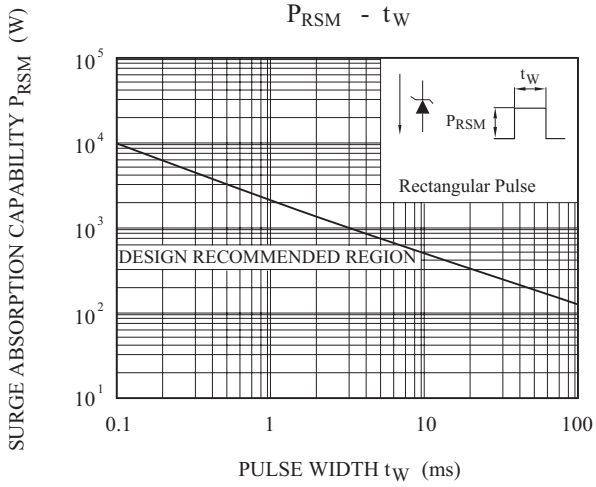
P - T_L , Ta



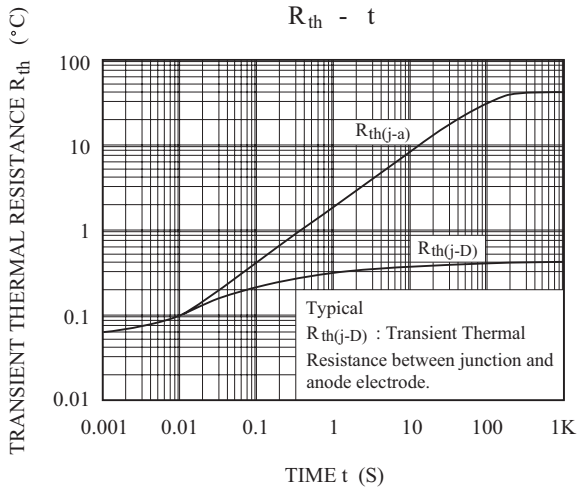
I_Z - V_Z



P_{RSM} - t_W



R_{th} - t



I_F - V_F