

**SURFACE MOUNT GLASS PASSIVATED  
ZENER SILICON RECTIFIER**  
VOLTAGE RANGE 3.3 TO 91.0 Volts STEADY STATE POWER 1.0 WATT

**FEATURES**

- \* Plastic package has underwriters laboratory
- \* Excellent clamping capability
- \* Low zener impedance
- \* Low regulation factor
- \* Operating and Storage Temperature Range:-55 to + 150°C
- \* P/N suffix V means AEC-Q101 qualified, e.g.FM4728WV
- \* P/N suffix V means Halogen-free

**MECHANICAL DATA**

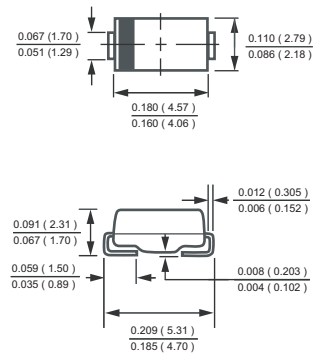
- \* Epoxy : Device has UL flammability classification 94V-0

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



**DO-214AC**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

**ELECTRICAL CHARACTERISTICS ( At T<sub>A</sub> = 25°C unless otherwise noted)**

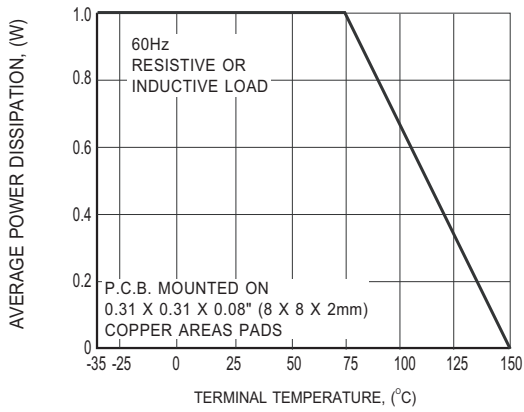
TYPE	NOMINAL ZENER VOLTAGE	TEST CURRENT	MAXIMUM DYNAMIC IMPEDANCE			MAXIMUM DC REVERSE LEAKAGE CURRENT		MAXIMUM SURGE CURRENT	MAXIMUM FORWARD VOLTAGE
	at I <sub>ZT</sub> V <sub>Z</sub> (NOTE 1) (Volts)	I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> at I <sub>ZT</sub> (ohms)	Z <sub>ZK</sub> at (ohms)	(NOTE 1) I <sub>ZK</sub> (mA)	I <sub>R</sub> (uA)	V <sub>R</sub> (Volts)	(NOTE 2) I <sub>RM</sub> (mApk)	at 200mA V <sub>F</sub> (Volts)
FM4728W	3.3	76.0	10	700	1.00	100.0	1.0	1380	1.2
FM4729W	3.6	69.0	10	700	1.00	100.0	1.0	1260	1.2
FM4730W	3.9	64.0	9.0	700	1.00	50.0	1.0	1190	1.2
FM4731W	4.3	58.0	9.0	700	1.00	10.0	1.0	1070	1.2
FM4732W	4.7	53.0	8.0	700	1.00	10.0	1.0	970	1.2
FM4733W	5.1	49.0	7.0	700	1.00	10.0	1.0	890	1.2
FM4734W	5.6	45.0	5.0	700	1.00	10.0	2.0	810	1.2
FM4735W	6.2	41.0	2.0	700	1.00	10.0	3.0	730	1.2
FM4736W	6.8	37.0	3.5	700	1.00	50.0	4.0	660.0	1.2

ELECTRICAL CHARACTERISTICS ( At T<sub>A</sub> = 25°C unless otherwise noted)

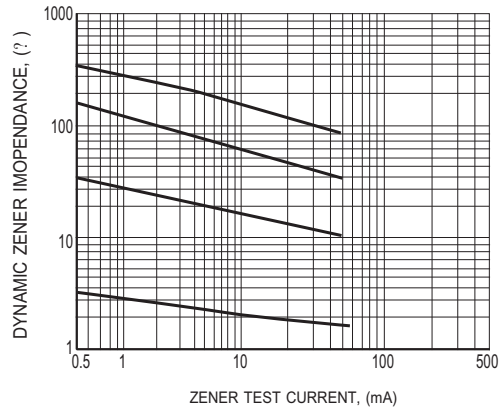
TYPE	NOMINAL ZENER VOLTAGE	TEST CURRENT	MAXIMUM DYNAMIC IMPEDANCE			MAXIMUM DC REVERSE LEAKAGE CURRENT		MAXIMUM SURGE CURRENT	MAXIMUM FORWARD VOLTAGE
	at I <sub>ZT</sub> V <sub>Z</sub> (NOTE 1) (Volts)	I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> at I <sub>ZT</sub> (ohms)	Z <sub>ZK</sub> at (ohms)	(NOTE 1) I <sub>ZK</sub> (mA)	I <sub>R</sub> ( $\mu$ A)	V <sub>R</sub> (Volts)	(NOTE 2) I <sub>RM</sub> (mApk)	at 200mA V <sub>F</sub> (Volts)
FM4737W	7.5	34.0	4.0	700	0.50	50.0	5.0	605.0	1.2
FM4738W	8.2	31.0	4.5	700	0.50	50.0	6.0	550.0	1.2
FM4739W	9.1	28.0	5.0	700	0.50	50.0	7.0	500.0	1.2
FM4740W	10.0	25.0	7.0	700	0.25	50.0	7.6	454.0	1.2
FM4741W	11.0	23.0	8.0	700	0.25	5.0	8.4	414.0	1.2
FM4742W	12.0	21.0	9.0	700	0.25	5.0	9.1	380.0	1.2
FM4743W	13.0	19.0	10.0	700	0.25	5.0	9.9	344.0	1.2
FM4744W	15.0	17.0	14.0	700	0.25	5.0	11.4	305.0	1.2
FM4745W	16.0	15.5	16.0	700	0.25	5.0	12.2	285.0	1.2
FM4746W	18.0	14.0	20.0	750	0.25	5.0	13.7	250.0	1.2
FM4747W	20.0	12.5	22.0	750	0.25	5.0	15.2	225.0	1.2
FM4748W	22.0	11.5	23.0	750	0.25	5.0	16.7	205.0	1.2
FM4749W	24.0	10.5	25.0	750	0.25	5.0	18.2	190.0	1.2
FM4750W	27.0	9.5	35.0	750	0.25	5.0	20.6	170.0	1.2
FM4751W	30.0	8.5	40.0	1000	0.25	5.0	22.8	150.0	1.2
FM4752W	33.0	7.5	45.0	1000	0.25	5.0	25.1	135.0	1.2
FM4753W	36.0	7.0	50.0	1000	0.25	5.0	27.4	125.0	1.2
FM4754W	39.0	6.5	60.0	1000	0.25	5.0	29.7	115.0	1.2
FM4755W	43.0	6.0	70.0	1500	0.25	5.0	32.7	110.0	1.2
FM4756W	47.0	5.5	80.0	1500	0.25	5.0	35.8	95.0	1.2
FM4757W	51.0	5.0	95.0	1500	0.25	5.0	38.8	90.0	1.2
FM4758W	56.0	4.5	110.0	2000	0.25	5.0	42.6	80.0	1.2
FM4759W	62.0	4.0	125.0	2000	0.25	5.0	47.1	70.0	1.2
FM4760W	68.0	3.7	150.0	2000	0.25	5.0	51.7	65.0	1.2
FM4761W	75.0	3.3	175.0	2000	0.25	5.0	56.0	60.0	1.2
FM4762W	82.0	3.0	200.0	3000	0.25	5.0	62.2	55.0	1.2
FM4763W	91.0	2.0	250.0	3000	0.25	5.0	69.2	50.0	1.2

- Notes :
1. Standard Voltage Tolerance : +/- 20% , Suffix A : +/- 10% , Suffix B : +/- 5% .
  2. Surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I<sub>ZT</sub> per JEDEC Method.
  3. Maximum steady state power dissipation is 1.0 watt at T<sub>L</sub> = 75°C.
  4. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

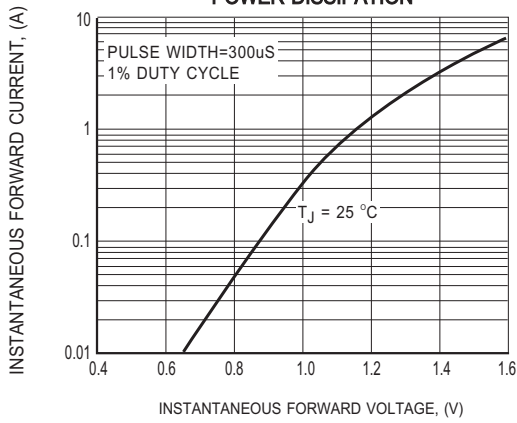
# RATING AND CHARACTERISTICS CURVES ( FM4728W THRU FM4763W )



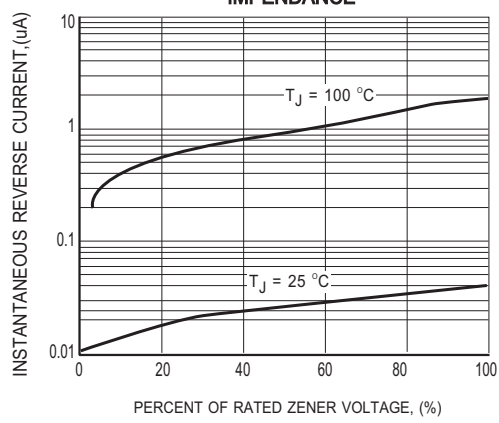
**FIG.1 MAXIMUM CONTINUOUS POWER DISSIPATION**



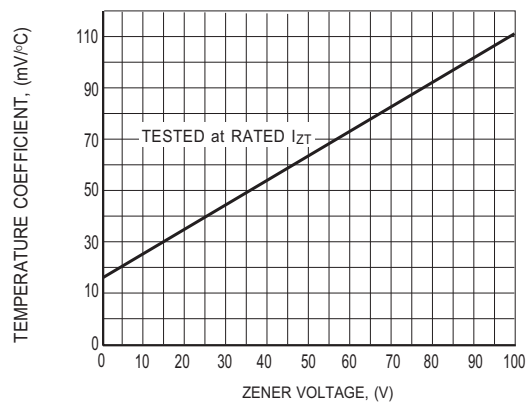
**FIG.2 TYPICAL ZENER IMPEDANCE**



**FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS FOR FM4763W**

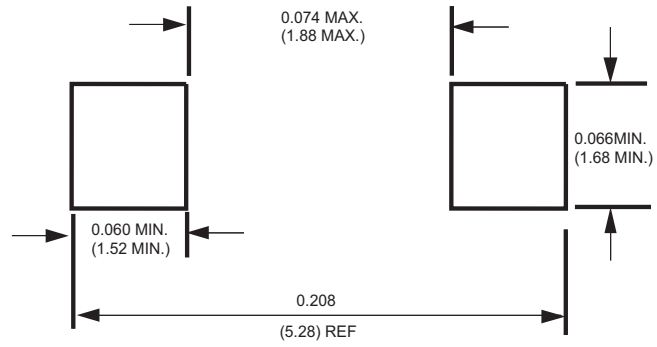


**FIG.4 TYPICAL REVERSE CHARACTERISTICS**



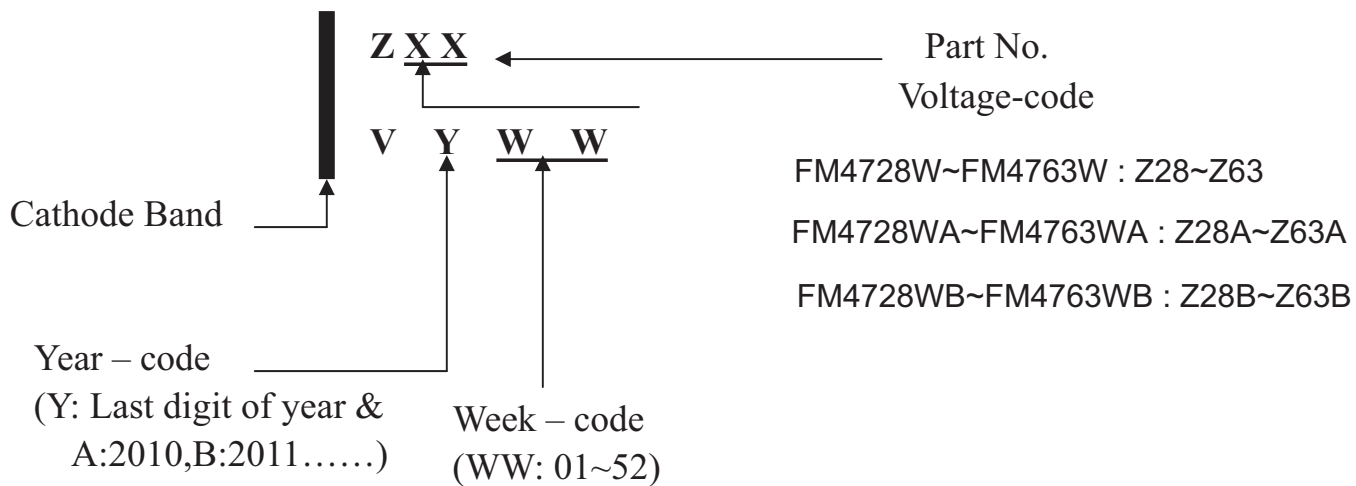
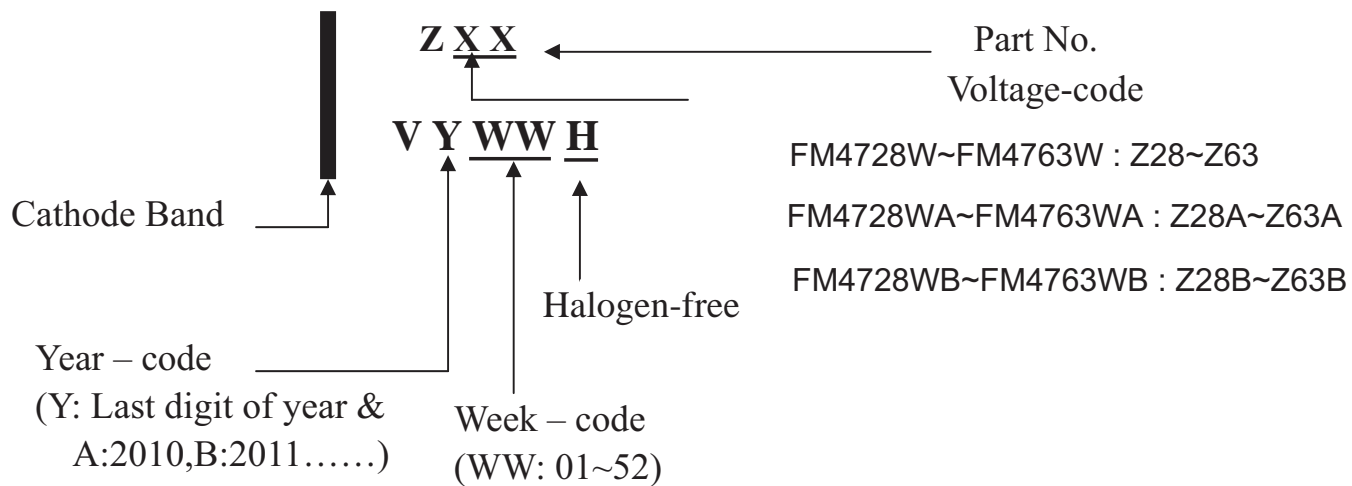
**FIG.5 TYPICAL TEMPERATURE COEFFICIENTS**

## Mounting Pad Layout



Dimensions in inches and (millimeters)

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SMA	-W	7,500	15,000	---	---	330	360*355*360	120,000	15.2

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SMA	-T	2,000	8,000	---	---	178	390*205*310	64,000	7.8

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