

# USM101 THRU USM108

## ULTRA FAST RECOVERY GLASS PASSIVATED RECTIFIERS

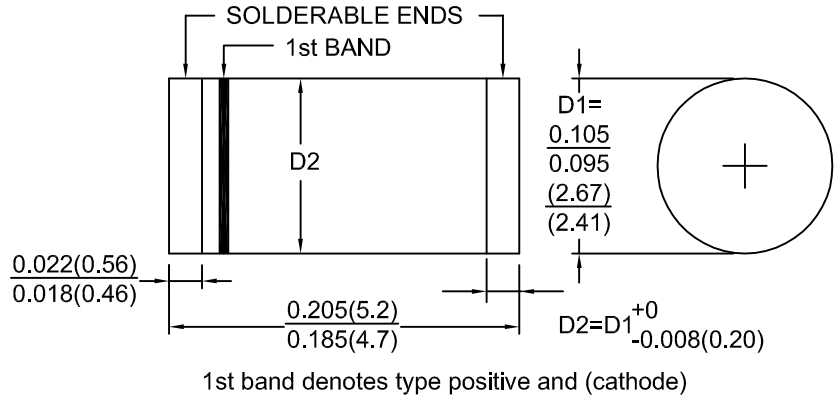
### FEATURES:

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- Glass passivated Chip

### MECHANICAL DATA

Case : Molded plastic use UL 94V-0 recognized flame retardant epoxy  
 Terminals : Plated terminals, solderable per MIL-STD-202, Method 208 guaranteed  
 Polarity : Silver color band on body denotes cathode  
 Mounting Position : Any  
 Weight : 0.116 grams, 0.0046 ounce

### MELF / DO-213AB



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	USM 101	USM 102	USM 103	USM 104	USM 105	USM 106	USM 107	USM 108	Units
Maximum recurrent peak reverse voltage	VRRM	50	100	200	300	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	212	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	300	400	600	800	1000	Volts
Maximum average forward rectified current at T <sub>L</sub> = 55° C	I <sub>O</sub>	1.0								Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	I <sub>FSM</sub>	30.0								Amps
Maximum instantaneous forward voltage at 1.0 A	V <sub>F</sub>	1.0			1.3		1.7			Volts
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	Ta=25° C				5.0				μ A
		Ta=100° C				100				
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>	50.0				75.0				nS
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	17.0				15.0				pF
Maximum thermal resistance (NOTE 3)	R <sub>th-JA</sub> R <sub>th-JL</sub>	75.0				27.0				° C/W
Operating temperature range	T <sub>J</sub>	-65 to +125								° C
Storage temperature range	T <sub>stg</sub>	-65 to +150								° C

- NOTES:  
 (1) Reverse recovery test condition : I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A  
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts  
 (3) P.C.B. mounted on 0.2x0.2"(5.0x5.0mm) copper pad area

# RATINGS AND CHARACTERISTIC CURVES USM101 THRU USM108

