

**ULTRA FAST RECTIFIERS**

REVERSE VOLTAGE - **50 to 1000** Volts  
FORWARD CURRENT - **1.5** Amperes

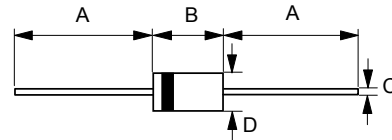
**FEATURES**

- Low cost
- Diffused junction
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

**MECHANICAL DATA**

- Case : JEDEC DO-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

**DO-41**



DO-41		
Dim.	Min.	Max.
A	25.4	-
B	4.10	5.20
C	0.71 $\varnothing$	0.86 $\varnothing$
D	2.00 $\varnothing$	2.70 $\varnothing$
All Dimensions in millimeter		

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

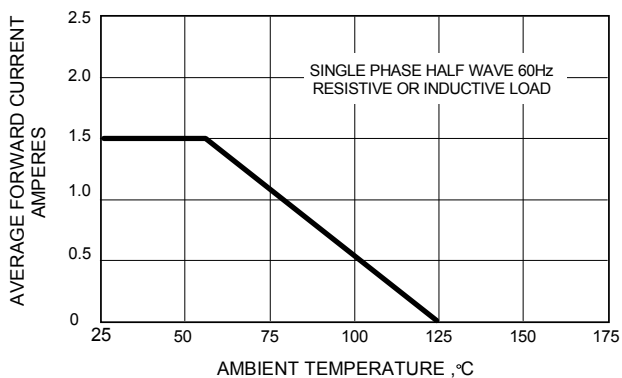
Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	UF 1501MS	UF 1502MS	UF 1503MS	UF 1504MS	UF 1505MS	UF 1506MS	UF 1507MS	UNIT	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current @T <sub>A</sub> =55°C	I <sub>(AV)</sub>	1.5							A	
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I <sub>FSM</sub>	50							A	
Maximum forward Voltage at 1.5A DC	V <sub>F</sub>	1.0		1.3		1.7			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =100°C	I <sub>R</sub>	5				100				uA
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	50				75				ns
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	35				20				pF
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	25							°C/W	
Operating Temperature Range	T <sub>J</sub>	-55 to +125							°C	
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C	

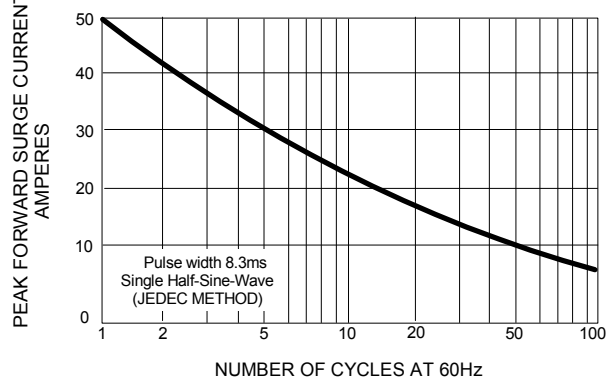
NOTES : 1.Measured with I<sub>F</sub>=0.5A,I<sub>R</sub>=1A,I<sub>RR</sub>=0.25A.  
2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3.Thermal Resistance Junction to Ambient.

REV. 3, Sep-2010, KDCC03

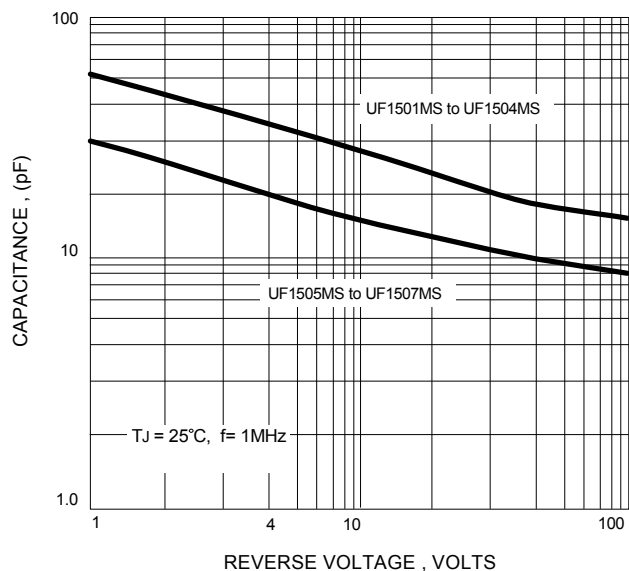
**FIG.1 - FORWARD CURRENT DERATING CURVE**



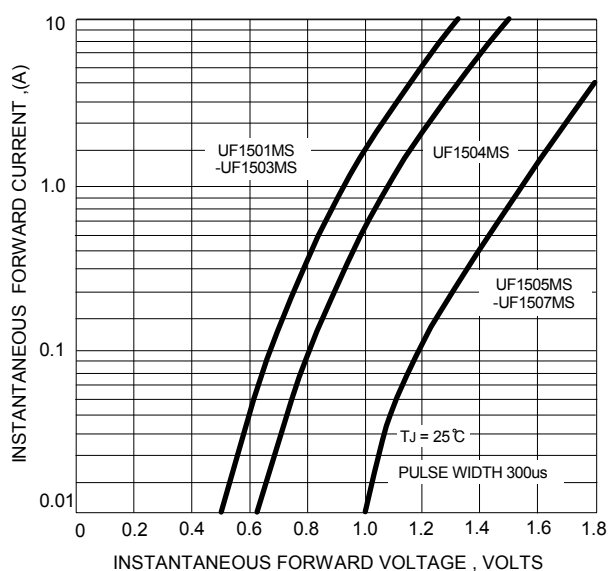
**FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 - TYPICAL JUNCTION CAPACITANCE**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



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