

**Ultra Fast Recovery High Efficiency Rectifier Diodes**  
**V<sub>RRM</sub> - 50 Volts to 1000 Volts, 2A**

**multicomp** PRO

**RoHS  
Compliant**



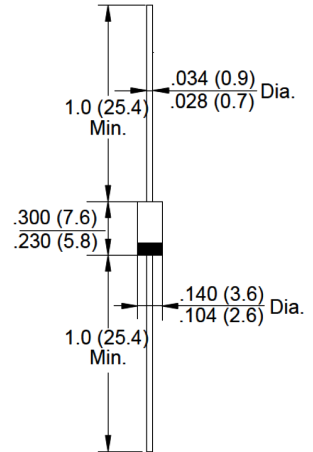
**Features**

- Glass Passivated (GPP)
- Low cost
- 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
- Lead free
- Case style: DO-204-AC (DO-15) molded plastic

**Maximum Ratings and Electrical Characteristics**

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

DO-204-AC (DO-15)



Dimensions : Inches (Millimetres)

Characteristics	Symbol	MP000939	MP000940	MP000941	MP000942	MP000943	MP000944	MP000945	MP000946	Unit	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700		
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000		
Maximum Average Forward Rectified Current @ T <sub>A</sub> = 50°C	I <sub>(AV)</sub>	2								A	
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	60								A	
Peak Forward Voltage at 2A DC	V <sub>F</sub>	1			1.3		1.7			V	
Maximum DC Reverse Current at Rated @ T <sub>J</sub> = 25°C DC Blocking Voltage @ T <sub>J</sub> = 100°C	I <sub>R</sub>					5					µA
						100					
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	50					75				nS
Typical Junction Capacitance (Note2)	C <sub>J</sub>	50					30				pF

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 Farnell.com/exclusive-brands  
 Element14.com/exclusive-brands

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Characteristics	Symbol	MP000939	MP000940	MP000941	MP000942	MP000943	MP000944	MP000945	MP000946	Unit
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	25								°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150								°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 1MHz and applied reverse voltage of 4V DC.
3. The typical data above is for reference only.

**Rating and Characteristic Curves**

Fig. 1 - Forward Current Derating Curve

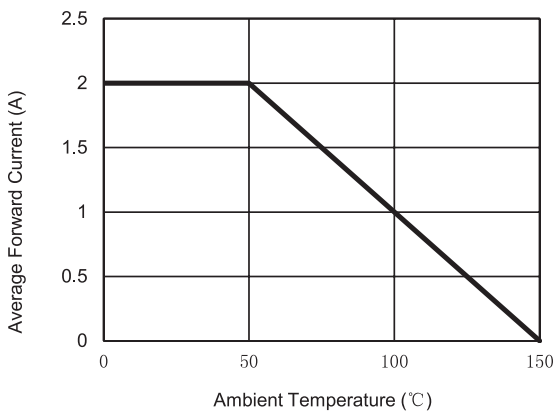


Fig. 2 - Maximum Non-Repetitive Surge Current

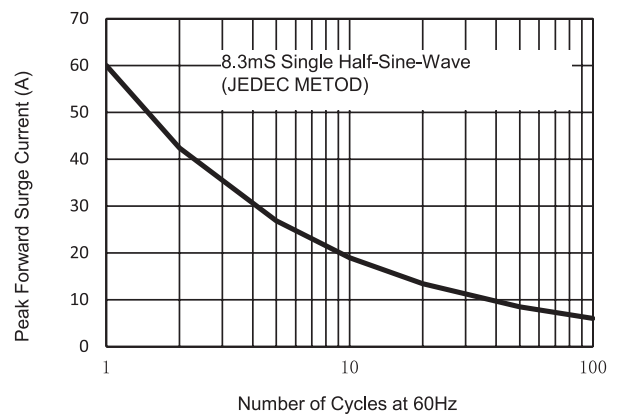


Fig. 3 - Typical Junction Capacitance

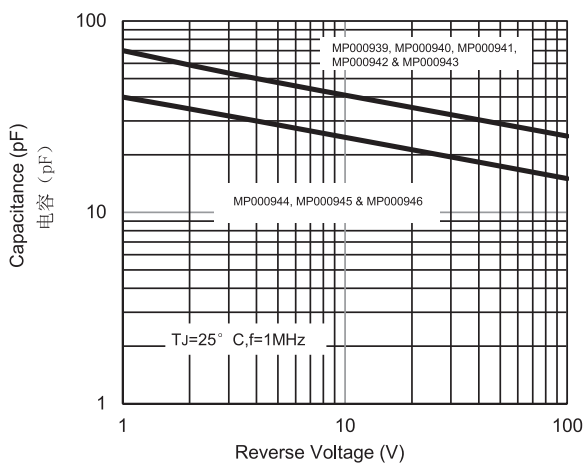


Fig. 4 - Typical Forward Characteristics

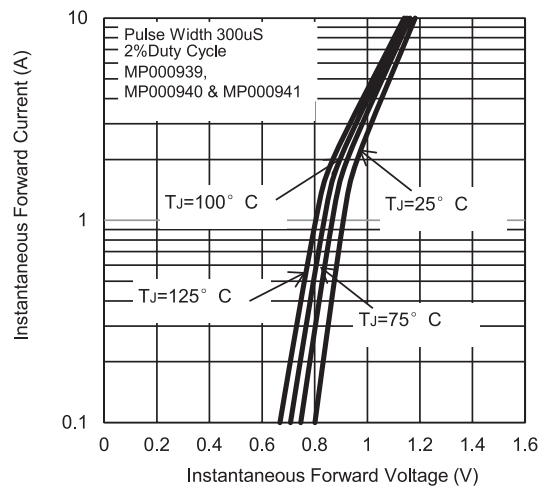


Fig. 5 - Typical Forward Characteristics

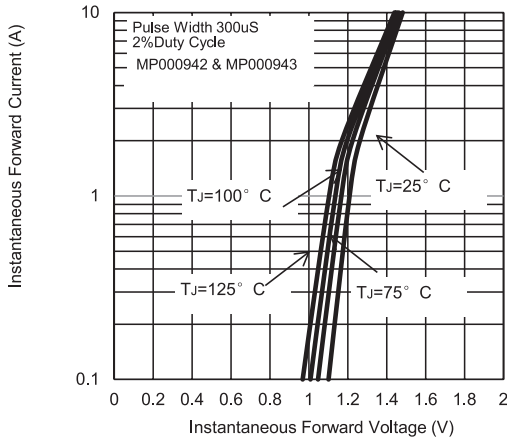
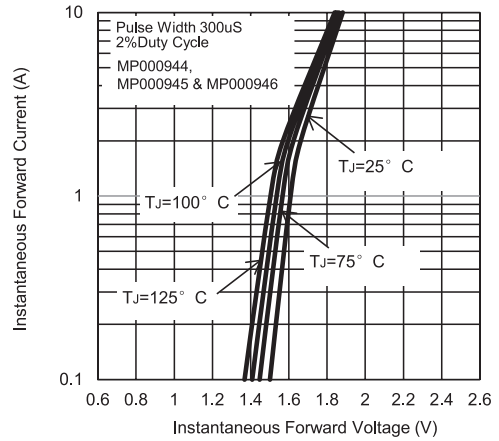


Fig. 6 - Typical Forward Characteristics



**Part Number Table**

Description	Part Number
Rectifier Diode, Ultra Fast, 50V, 2A, DO-204AC (DO-15)	MP000939
Rectifier Diode, Ultra Fast, 100V, 2A, DO-204AC (DO-15)	MP000940
Rectifier Diode, Ultra Fast, 200V, 2A, DO-204AC (DO-15)	MP000941
Rectifier Diode, Ultra Fast, 300V, 2A, DO-204AC (DO-15)	MP000942
Rectifier Diode, Ultra Fast, 400V, 2A, DO-204AC (DO-15)	MP000943
Rectifier Diode, Ultra Fast, 600V, 2A, DO-204AC (DO-15)	MP000944
Rectifier Diode, Ultra Fast, 800V, 2A, DO-204AC (DO-15)	MP000945
Rectifier Diode, Ultra Fast, 1kV, 2A, DO-204AC (DO-15)	MP000946

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