

WFV16M120D-HAF

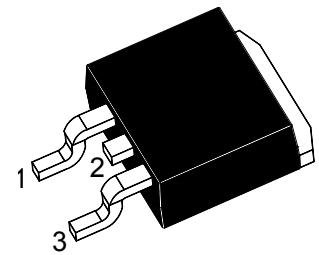
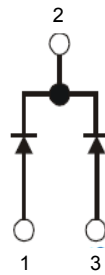
Ultrafast High Voltage Rectifiers

Reverse Voltage - 1200 V

Forward Current - 16 A

Features

- Very low leakage current
- Very short recovery time
- Very soft recovery behaviour
- Avalanche voltage rated for reliable operation
- Halogen and Antimony Free(HAF), RoHS compliant



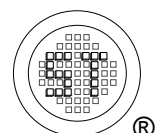
1. Anode 2. Cathode 3. Anode
TO-263 Plastic Package

Applications

- Antiparallel diode for high frequency switching devices
- Antisaturation diode
- Rectifiers in switch mode power supplies (SMPS)
- Uninterruptible power supplies (UPS)

Maximum Rating (Ta = 25°C unless otherwise specified)

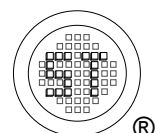
Parameter		Symbols	Value	Unit
Maximum Non-Repetitive Peak Reverse Voltage	T _j = 25°C	V _{RSM}	1200	V
Maximum Repetitive Peak Reverse Voltage	T _j = 25°C	V _{RRM}	1200	V
Average Rectified Current at T _c = 125°C	Per diode Total device	I _{F(AV)}	8 16	A
Peak Forward Surge Current 10 ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)		I _{FSM}	65	A
Thermal Resistance from Junction to Case	Per diode Total device	R _{θJC}	2.5 1.6	°C/W
Total Power Dissipation	T _c = 25°C	P _{tot}	50	W
Operating Junction Temperature		T _j	- 55 to + 150	°C
Storage Temperature Range		T _{stg}	- 55 to + 150	°C



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Parameter	Symbol	Typ.	Max.	Unit
Forward Voltage at $I_F = 10\text{ A}$, $T_j = 25^\circ\text{C}$ at $I_F = 10\text{ A}$, $T_j = 150^\circ\text{C}$	V_F	- -	2.94 1.96	V
Forward Voltage at $I_F = 20\text{ A}$, $T_j = 25^\circ\text{C}$ at $I_F = 20\text{ A}$, $T_j = 150^\circ\text{C}$	V_F	- -	3.57 2.56	V
Reverse Current at $V_R = 1200\text{ V}$, $T_j = 25^\circ\text{C}$ at $V_R = 1200\text{ V}$, $T_j = 150^\circ\text{C}$	I_R	- -	60 0.25	μA mA
Maximum Junction Capacitance at $V_R = 600\text{ V}$, $f = 1\text{ MHz}$, $T_j = 25^\circ\text{C}$	C_j	3	-	pF
Maximum Reverse Recovery Time at $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$ $T_j = 25^\circ\text{C}$	t_{rr}	40	-	ns



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Electrical characteristic curves

Fig 1. Reverse Characteristics

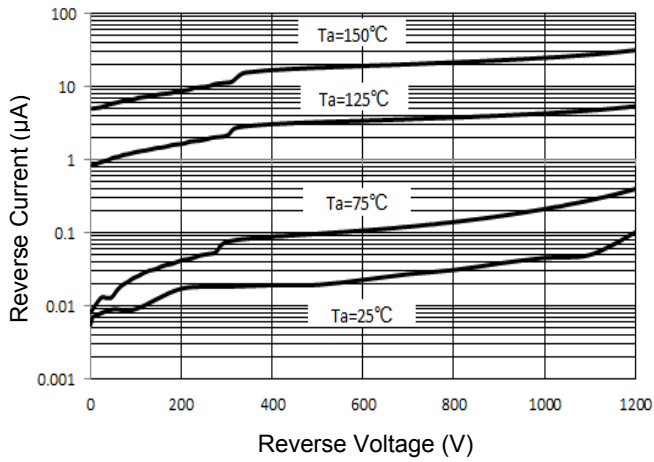


Fig 2. Forward Characteristics

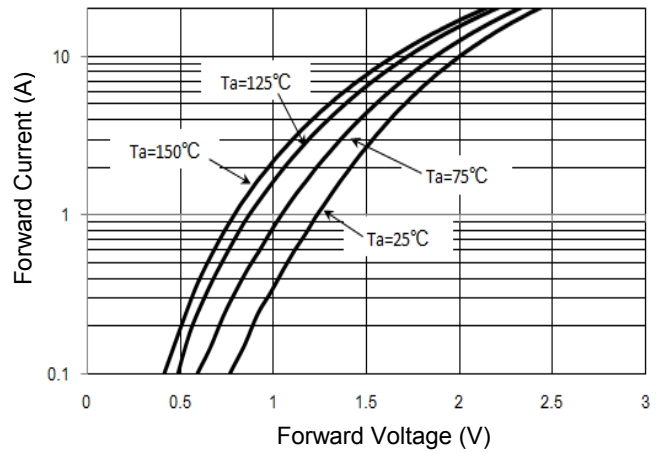


Fig 3. Junction Capacitance

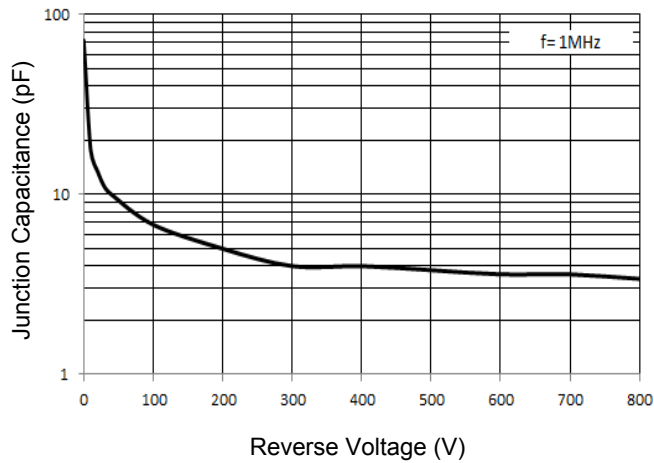
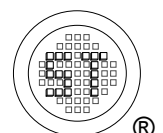
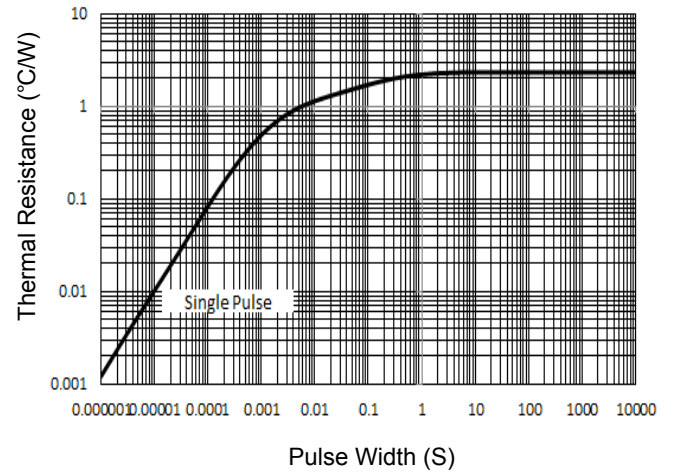


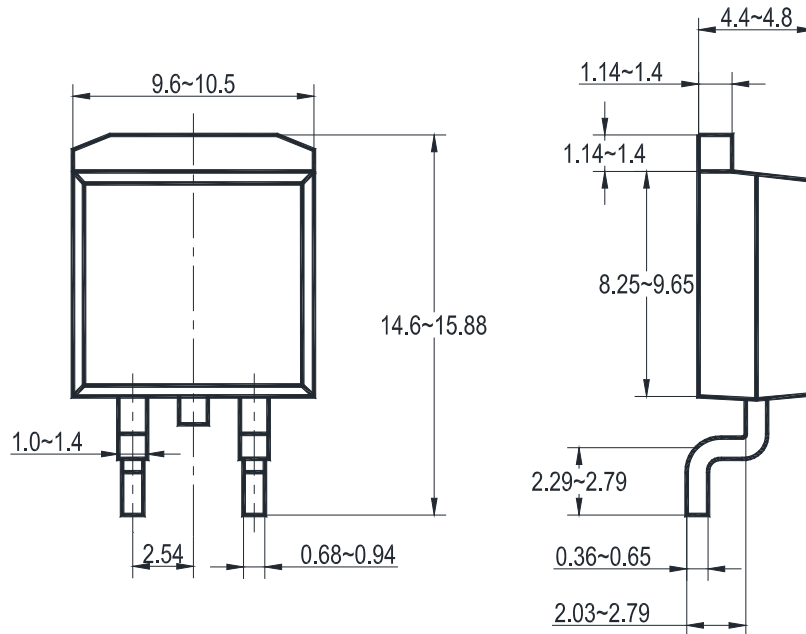
Fig 4. Thermal Resistance



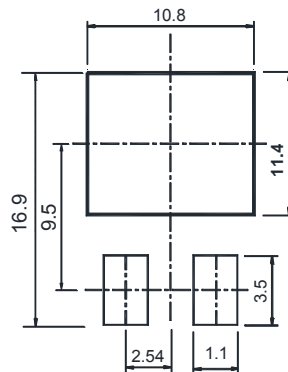
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Package Outline (Dimensions in mm)

TO-263



Recommended Soldering Footprint



Packing information

Package	Carton Quantity	Box Quantity	Base Quantity	Delivery Mode
TO-263	5 K / Carton	1 K / Box	50 pcs / Tube	Tube

Marking information

" FV16M120D" = Part No.

" ***** " = Date Code Marking

Font type: Arial

