

WFV16M60D-AH

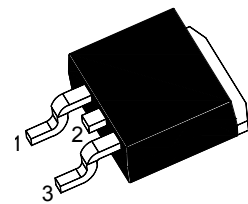
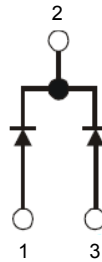
Ultrafast High Voltage Rectifier

Reverse Voltage - 600 V

Forward Current - 16 A

Features

- Low reverse recovery current
- Reduce switching and conduction losses
- Low thermal resistance
- Ultrafast switching
- AEC-Q101 Qualified
- Halogen and Antimony Free(HAF), RoHS compliant



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

Applications

- For use in Switching Power Supplies as Rectifier
- Discontinuous Mode PFC Boost Diode for Automotive Applications

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

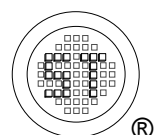
Parameter	Symbols	Value	Unit
Repetitive Peak Reverse Voltage at $T_j = -40^\circ\text{C}$ to $+150^\circ\text{C}$	V_{RRM}	600	V
Average Rectified Current at $T_c = 125^\circ\text{C}$	$I_{F(AV)}$	8 16	A
Peak Forward Surge Current 10 ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	80	A
Operating Junction Temperature	T_j	- 55 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Thermal Characteristics (at $T_a = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Max.	Unit
Thermal Resistance-Junction to Case	$R_{\theta JC}$	4	$^\circ\text{C/W}$

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

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 8\text{ A}$, $T_j = 25^\circ\text{C}$ at $I_F = 8\text{ A}$, $T_j = 150^\circ\text{C}$	V_F	1.8 1.35	V
Forward Voltage at $I_F = 16\text{ A}$, $T_j = 25^\circ\text{C}$ at $I_F = 16\text{ A}$, $T_j = 150^\circ\text{C}$	V_F	2.08 1.64	V
Reverse Current at $V_R = 600\text{ V}$, $T_j = 25^\circ\text{C}$ at $V_R = 600\text{ V}$, $T_j = 150^\circ\text{C}$	I_R	8 240	μA
Maximum Reverse Recovery Time at $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$	t_{rr}	35	ns



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Electrical Characteristics Curves

Fig 1. Reverse Characteristic Curve

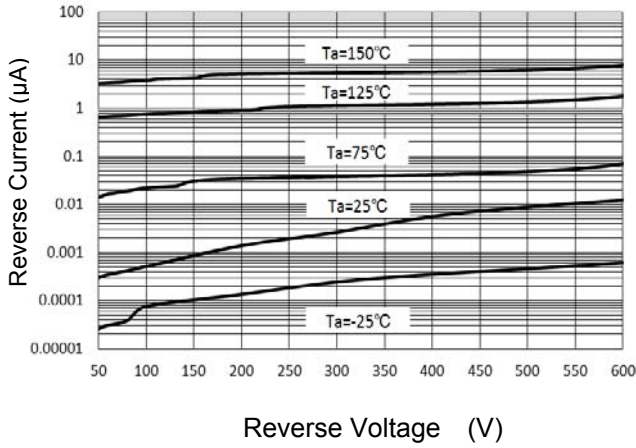


Fig 2. Forward Characteristic Curve

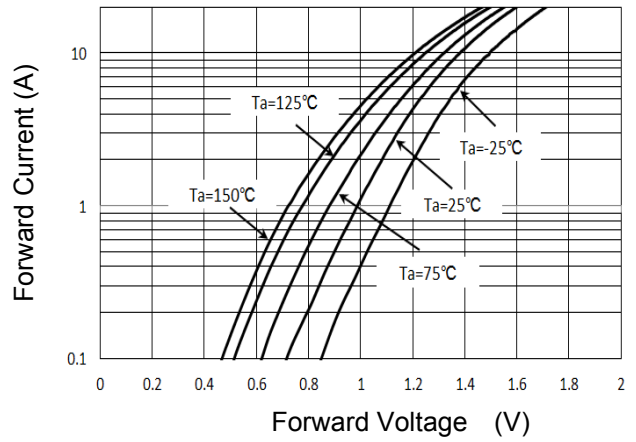


Fig 3. Thermal Resistance Curve

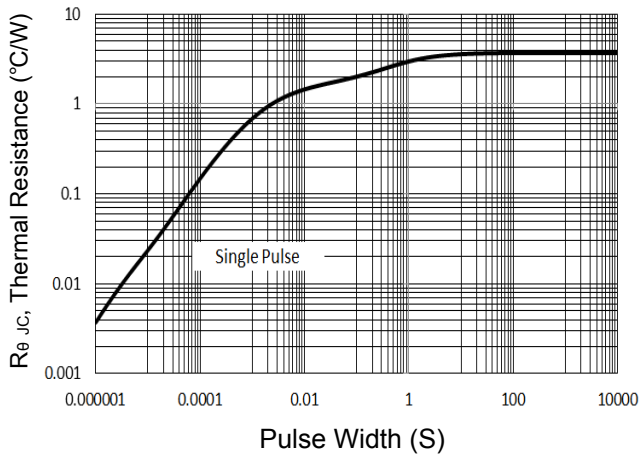


Fig 4. Junction Capacitance

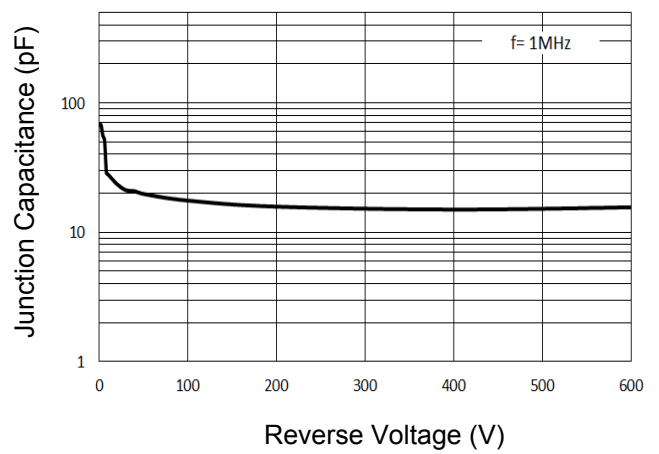
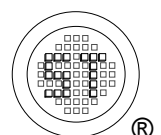
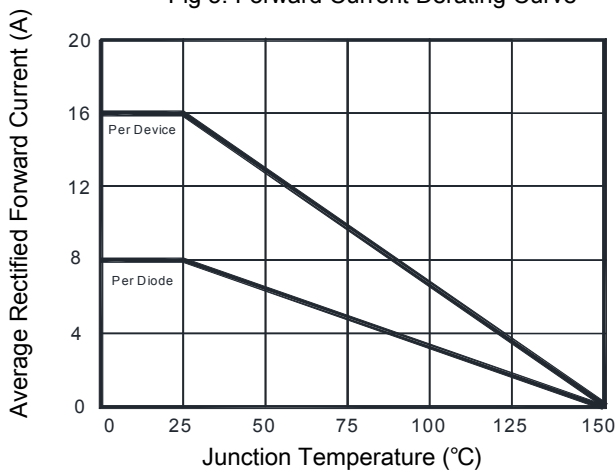


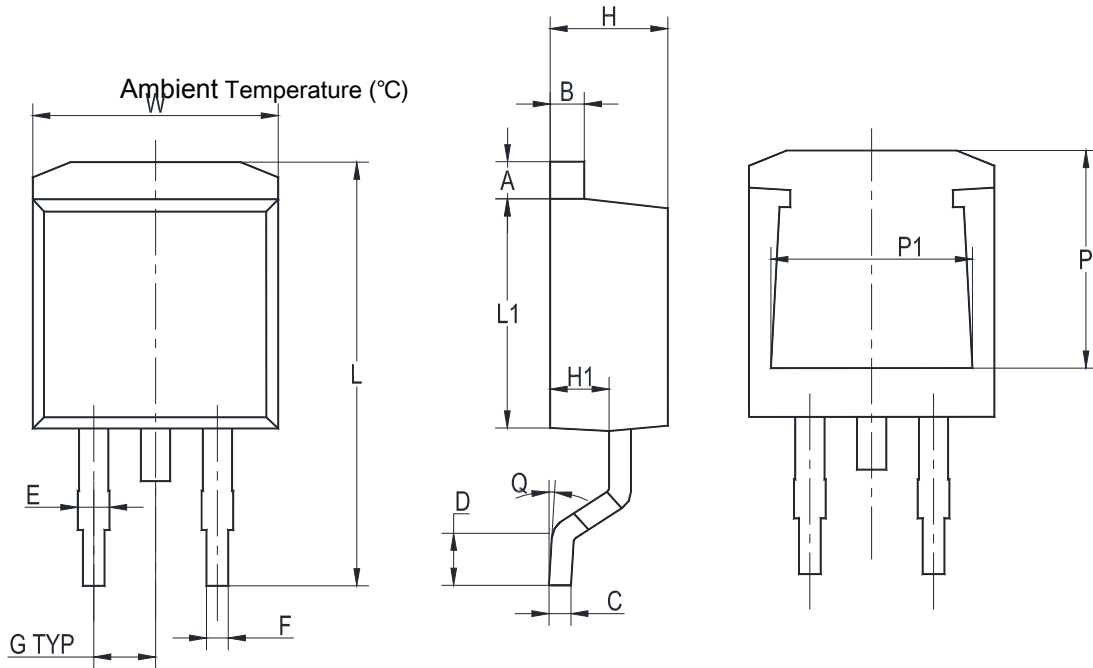
Fig 5. Forward Current Derating Curve



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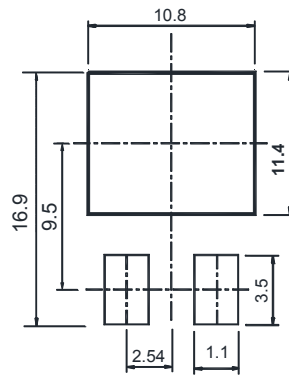
Package Outline Dimensions (Units: mm)

TO-263



UNIT	A	B	C	D	E	F	G	W	H	H1	L	L1	Q	P	P1
mm	1.5	1.5	0.5	2.60	1.6	0.94	2.54	10.5	4.8	2.9	16.5	8.7	8"	7.6	8.2
	1.1	1.1	0.3	2.15	1.1	0.68	TYP.	9.6	4.4	2.5	14.5	8.2	MAX.	7.1	7.4

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

" FV16M60D " = Part No.

" ***** " = Date Code Marking

Font type: Arial

