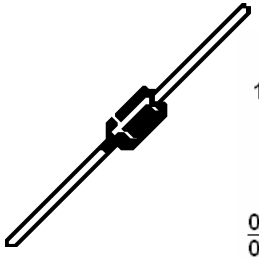
Semiconductor *Data Sheet*

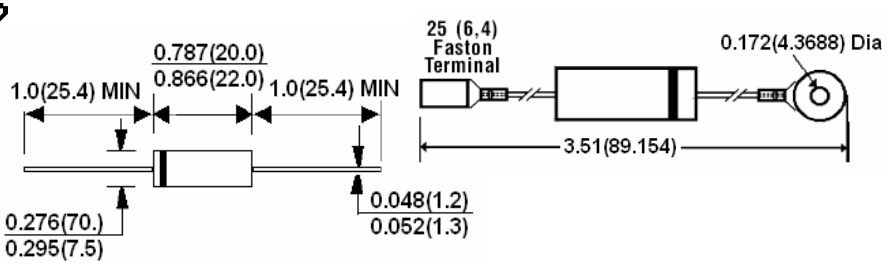
350 mA HIGH VOLTAGE MICROWAVE OVEN RECTIFIERS

HV03 Series

Description



Mechanical Dimensions



Features

- **HIGH OVERLOAD SURGE CAPABILITY**
- **CONTROLLED AVALANCHE CHARACTERISTICS**
- **LOW FORWARD VOLTAGE DROP**
- **TYPICAL I_R < 1μA**
- **HIGH TEMPERATURE SOLDERING – 250°C 10 Seconds**
- **MEETS UL SPECIFICATION 94V-0**

	HV03 Series						Units
Maximum Ratings	**HV03-08**	**HV03-09**	**HV03-10**	**HV03-12**	**HV03-14**	**HV03-15**	
Peak Repetitive Reverse Voltage...V_{RRM}	8000	9000	10000	12000	14000	15000	Volts
RMS Reverse Voltage...$V_{R(rms)}$	5600	6300	7000	8400	9800	10500	Volts
DC Blocking Voltage...V_{DC}	8000	9000	10000	12000	14000	15000	Volts
Average Forward Rectified Current...$I_{F(av)}$ @ T_A = 60°C	..... 350						mAmps
Non-Repetitive Peak Forward Surge Current...I_{FSM} @ Rated Load Conditions, 9.3 ms, ½ Sine Wave	..... 20						Amps
Repetitive Peak Reverse Surge Current...I_{RSM} @ Rated Load Conditions, 8.3 ms, ½ Sine Wave	..... 100						mAmps
Operating & Storage Temperature Range...T_J, T_{STRG}	..... -40 to 130						°C
Electrical Characteristics							
Maximum Forward Voltage...V_F @ 350 mA	< ..... 10 .....>			12	< ..... 15 ..... >		Volts
Maximum DC Reverse Current...I_R @ Rated DC Blocking Voltage	..... 5.0						μAmps
Maximum Thermal Resistance...$R_{\theta JC}$	..... 18						°C / W

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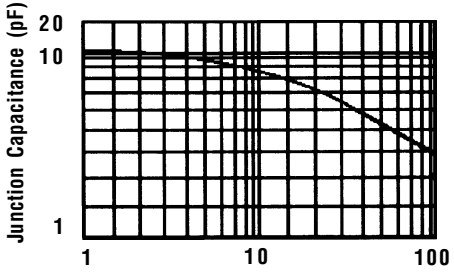
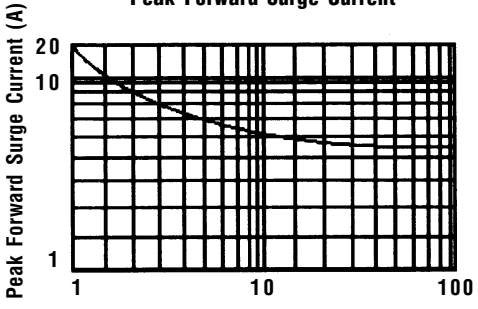
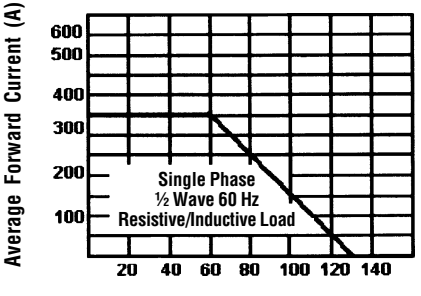
Typical Junction Capacitance



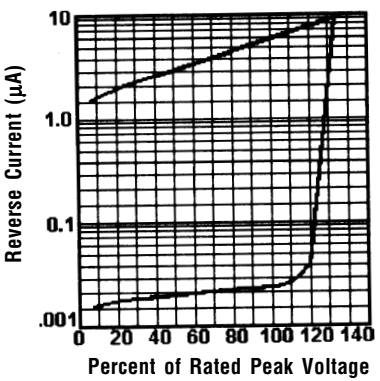
Non-Repetitive Peak Forward Surge Current



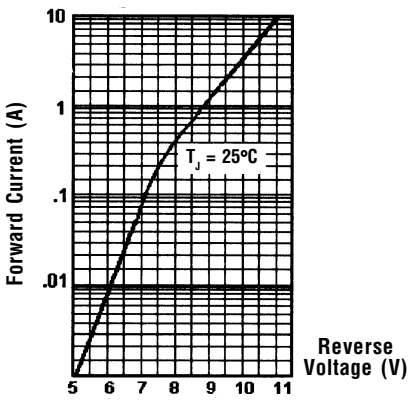
Forward Current Derating Curve



Typical Reverse Characteristics



Typical Instantaneous Forward Characteristics



Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 Hz Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.