SEMICONDUCTOR

HER301G THRU HER308G

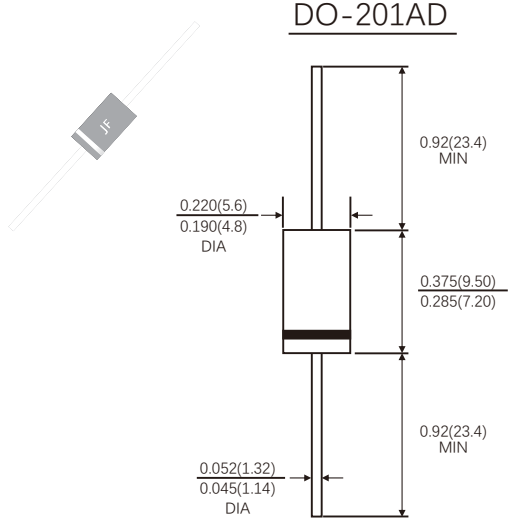
HIGH EFFICIENCY RECTIFIER

Reverse Voltage: 50-1000 Volts
Forward Current:3.0Amperes

FEATURE

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Diffused junction
- High current capability
- Low power loss, high efficiency
- Low forward voltage drop
- Low leakage
- High temperature soldering guaranteed: 260 ℃/10 seconds at terminals
- Component in accordance to RoHS2015/863/EU
- For use in high frequency rectification and freewheeling application

DO-201AD



Dimensions in inches and (millimetrers)

MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041ounce, 1.15 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameters		Symbol	HER 301G	HER 302G	HER 303G	HER 304G	HER 305G	HER 306G	HER 307G	HER 308G	Units
Maximum Recurrent peak reverse voltage		V_{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current		$I_{(AV)}$	3.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	150.0								Amps
Maximum Instantaneous Forward Voltage at 3.0 A		V_F	1.0			1.3		1.7			Volts
Maximum DC Reverse Current at rated DC blocking voltage	T_J=25℃	I_R	5.0								μA
	T_J=125℃		150								
Maximum reverse recovery time(Note1)		Trr	50					75			ns
Typical junction capacitance(Note2)		C_J	60					24			pF
Operating junction and storage temperature range		T_J/T_{STG}	-55 to+150 -55 to+150								℃

Note: 1.Test conditions: I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.
2.Measured at 1MHZ and applied reverse voltage of 4.0 Volts D.C.

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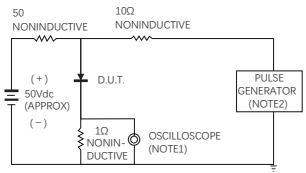
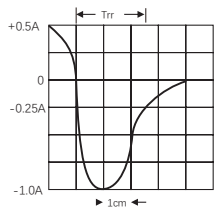
RATINGS AND CHARACTERISTIC CURVES OF HER301G THRU HER308G

FIG.1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1.Rise Time=7ns max. input impedance=1MΩ 22pF
2.Rise Time=10ns max. source impedance=50Ω



SET TIME BASE FOR 50/100 ns/cm

FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

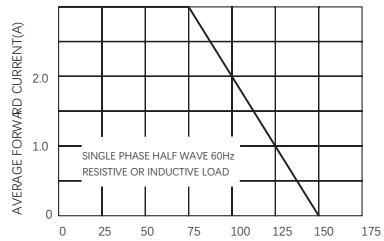


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

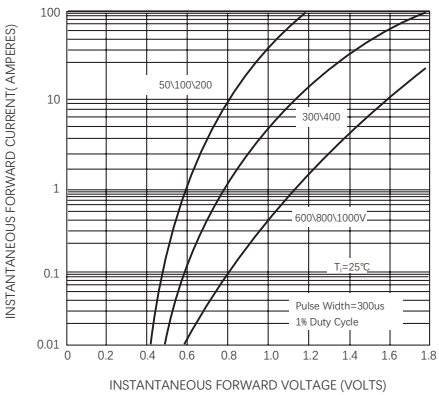


FIG.4-TYPICAL REVERSE CHARACTERISTICS

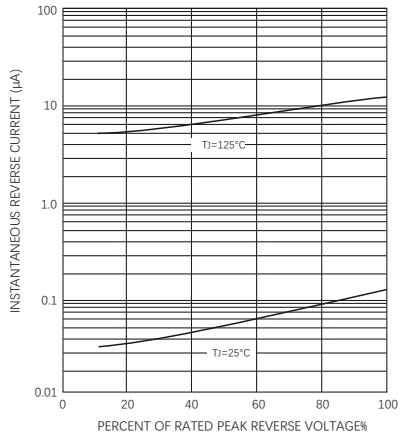


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

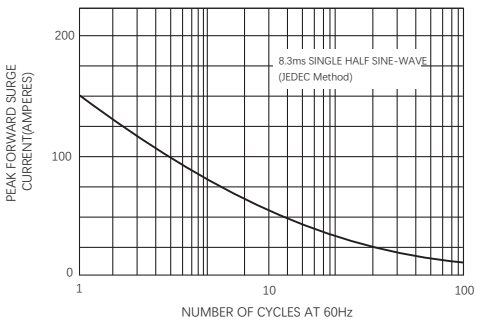
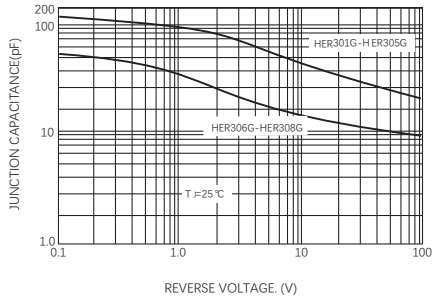


FIG.6-TYPICAL JUNCTION CAPACITANCE



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