New Jersey Semi-Conductor Products, Inc.

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HER101 THRU HER108

HIGH EFFICIENCY RECTIFIER

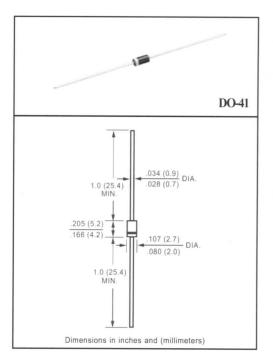
VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

FEATURES

- * Low power loss, high efficiency
- * Low leakage
- * Low forward voltage
- * High current capability
- * High speed switching
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.35 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	HER101	HER102	HER103	HER104	HER105	HER105P	HER106	HER107	HER108	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	300	400	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	210	280	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA= 50°C	lo	1.0								Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	30								Amps	
Typical Junction Capacitance (Note 2)	CJ	15 12								pF	
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 150									°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	HER101	HER102	HER103	HER104	HER105	HER105P	HER106	HER107	HER108	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	VF	1.0		1.3		1.0	1.70			Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage Ta = 25°C		5.0 100									uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at TL = 55°C	IR										uAmps
Maximum Reverse Recovery Time (Note 1)	trr	50				75		nSec			

NOTES: 1. Test Conditions: IF = 0.5A, IR = -1.0A, IRR = -0.25A

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

