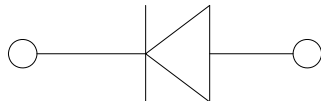




High Efficient Rectifier



Features

- High efficiency
- High current capability
- High Reliability
- High surge current capability
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Mechanical Data

- **Package:** DO-204AL(DO-41)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end

■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	HER101	HER102	HER103	HER104	HER105	HER106	HER107	HER108
Device marking code			HER101	HER102	HER103	HER104	HER105	HER106	HER107	HER108
Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	300	400	600	800	1000
Average Forward Current @60Hz sine wave, Resistance load, Ta=75°C	$I_{F(AV)}$	A	1.0							
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Ta=25°C	I_{FSM}	A	30							
Storage Temperature	T_{stg}	°C	-55 ~ +150							
Junction Temperature	T_j	°C	-55 ~ +150							

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	HER101	HER102	HER103	HER104	HER105	HER106	HER107	HER108
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =1.0A	1.0			1.3		1.7		
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	μA	T _a =25°C	2.5							
	I _{RRM2}		T _a =100°C	150							
Reverse Recovery time	t _{rr}	ns	I _F =0.5A I _R =1A I _{RR} =0.25A	50					75		
Typical junction capacitance	C _j	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	20					10		

■Thermal Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	HER101	HER102	HER103	HER104	HER105	HER106	HER107	HER108
Thermal Resistance(Typical)	$R_{\theta JA}$	°C/W	60							



HER101 THRU HER108

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
HER101~HER108	D1	Approximate 0.30	5000	5000	50000	Tape
HER101~HER108	C1	Approximate 0.30	1000	1000	50000	Bulk

■ Characteristics (Typical)

FIG.1: I_o - T_a Curve

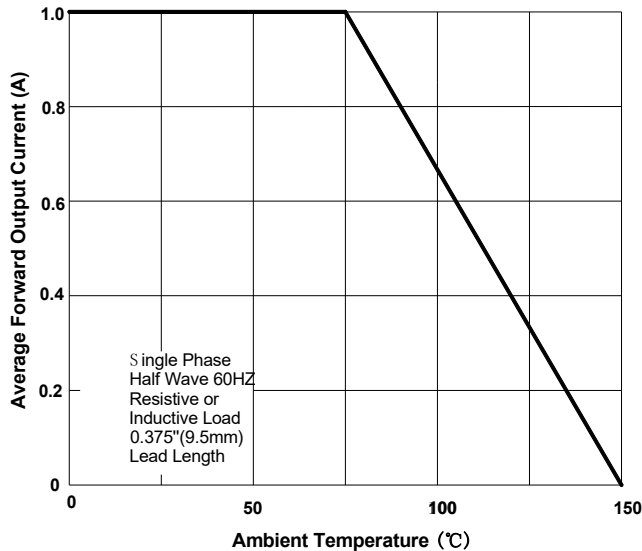


FIG.2: Forward Surge Current Capability

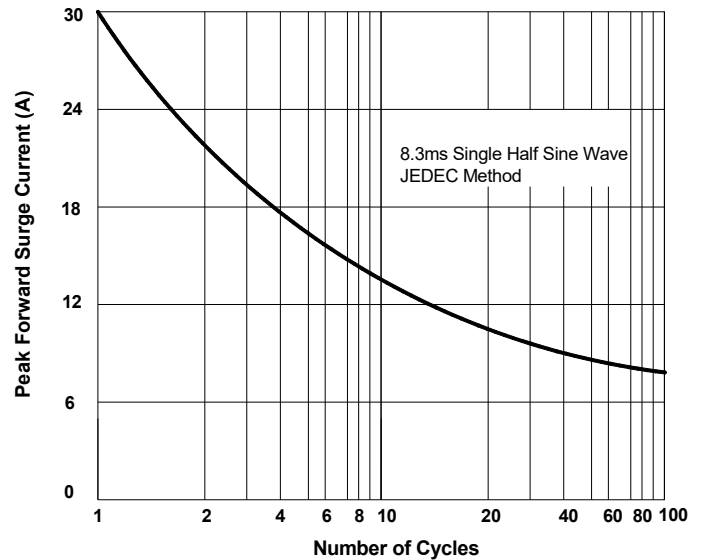


FIG.3: Forward Voltage

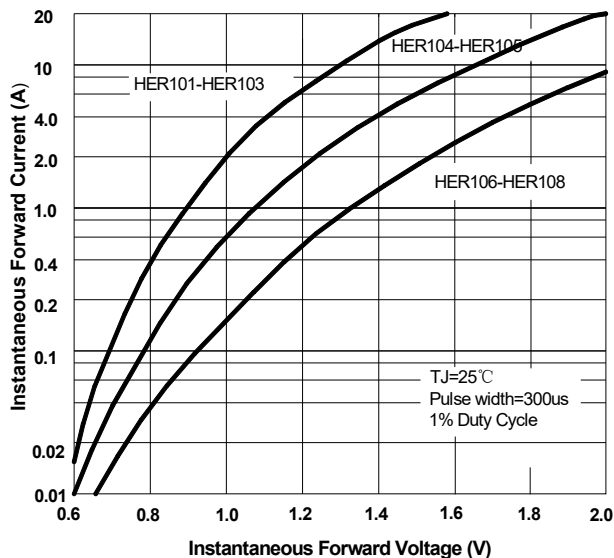
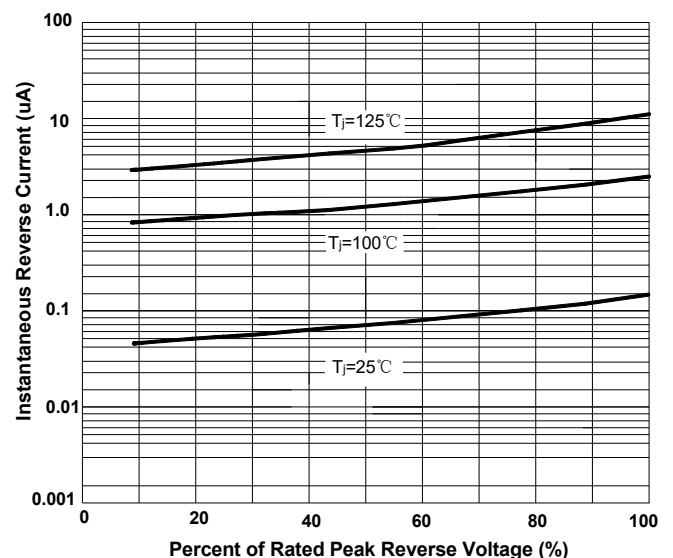


FIG.4: Typical Reverse Characteristics



The circuit diagram shows a pulse generator (NOTE 2) connected in series with a 10 Ω noninductive resistor and a diode (DUT). The diode is in series with a 1 Ω noninductive resistor. The output is connected to an oscilloscope (NOTE 1). The oscilloscope trace shows a square wave signal with a rise time of 7 ns max and a fall time of 10 ns max. The source impedance is 50 Ω.

NOTES:

1. Rise Time = 7 ns max. Input Impedance = 1 MΩ 22 pF
2. Rise Time = 10 ns max. Source Impedance = 50 Ω

DO-204AL(DO-41)

Dimensions in millimeters

DO-204AL(DO-41)		
Dim	Min	Max
A	4.22	5.21
B	2.03	2.72
C	25.4	/
D	0.69	0.86



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