

1A Axial High Efficiency Rectifier

PRODUCT SUMMARY

Voltage range 50 to 1000 Volts
Popular DO204AL/DO-41 axial package

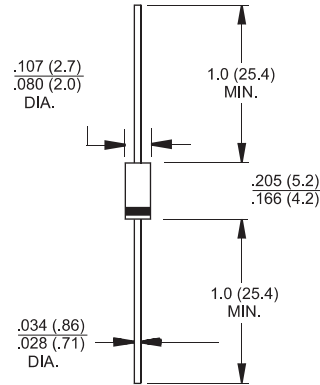
DO-204AL/DO-41

FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- High current capability
- Diffused junction
- Ultra fast switching for high efficiency
- High temperature soldering guaranteed: 350°C for 10 seconds with 0.375" (9.5mm) lead length and 5 lbs. (2.3kg) tension
- Maximum T_j is 150°C and maximum T_{STG} is 175°C with PI glue

MECHANICAL DATA

- Case: JEDEC DO-204AL (DO-41), molded plastic body
- Terminals: Matte-Sn plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: any
- Weight: 0.012 ounce, 0.35g



Dimensions in inches and (millimeters)

 **Pb-free, RoHS compliant.**

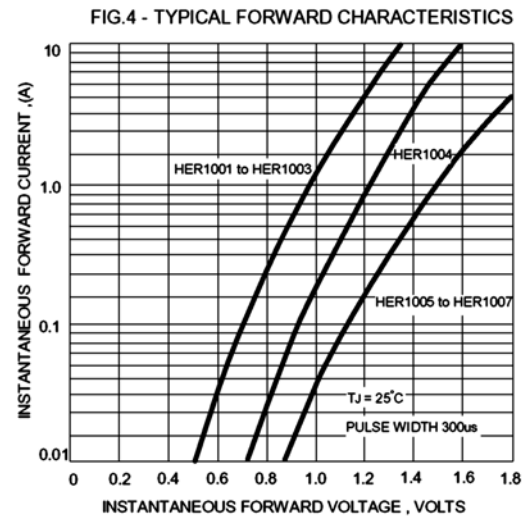
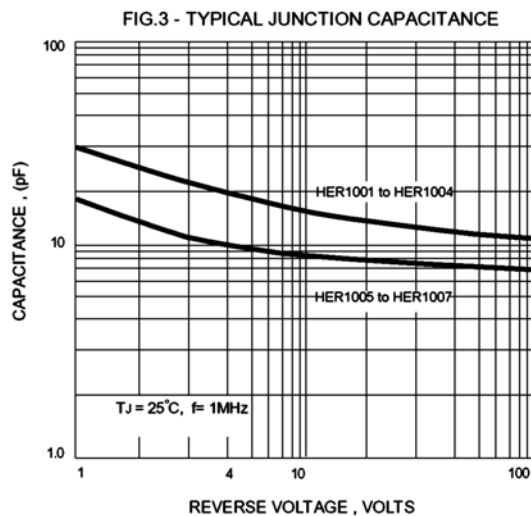
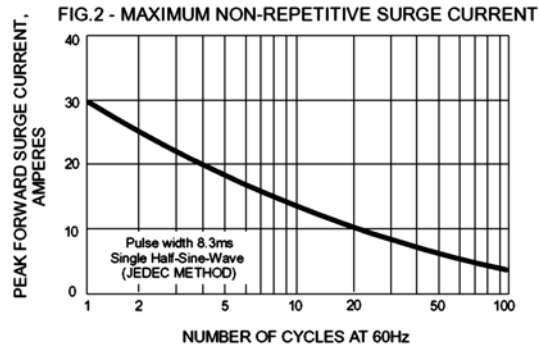
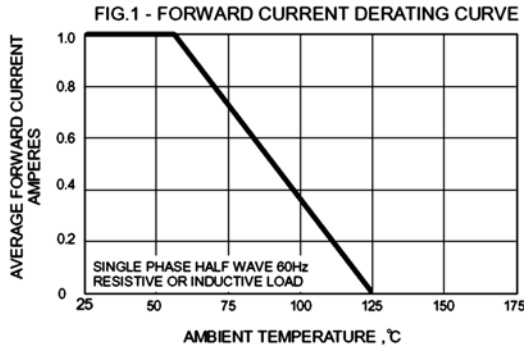
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%

Parameter	Symbols	HER 1001	HER 1002	HER 1003	HER 1004	HER 1005	HER 1006	HER 1007	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current @ $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							Amps
Maximum forward voltage at 1.0A DC	V_F	1.0		1.3		1.7		Volts	
Maximum DC reverse current at rated DC blocking voltage @ $T_J=25^\circ\text{C}$ @ $T_J=100^\circ\text{C}$	I_R	5.0				100			μA μA
Maximum reverse recovery time (Note 1)	t_{rr}	50				100			nS
Typical junction capacitance (Note 2)	C_J	20				10			pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	25							$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +125							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

- Notes:**
1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Thermal Resistance Junction to Ambient.

RATINGS AND CHARACTERISTIC CURVES (TA = 25°C unless otherwise noted)



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