

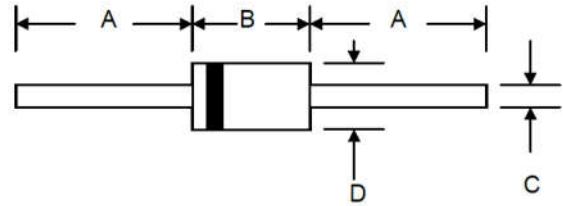
3.0A ULTRA FAST PLASTIC RECTIFIER

FEATURES

- Low leakage
- Low forward voltage drop
- High surge current capability
- Ultra fast switching for high efficiency

MECHANICAL DATA

- Case: DO-201AD(DO-27)
- Case material: Molded plastic. UL flammability
- Classification rating: 94V-0
- Weight: 1.2 grams (approximate)



DO-201AD(DO-27)		
Dim	Min	Max
A	25.4	—
B	8.50	9.50
C	1.20	1.30
D	5.0	5.60
All Dimensions in mm		

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	HER 301	HER 302	HER 303	HER 304	HER 305	HER 306	HER 307	HER 308	Unit
Peak repetitive reverse voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
RMS reverse voltage	V_{RMS}	35	70	140	210	280	420	560	700	V
DC blocking voltage	V_{DC}	35	100	200	300	400	600	800	1000	V
Average forward rectified current @ $T_A = 55^{\circ}\text{C}$	$I_{F(av)}$	3.0								A
Non-repetitive peak forward surge current@rated current & temp	I_{FSM}	150								A
Operating temperature range	T_J	-50~ 125								$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-50 ~ 150								$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	HER 301	HER 302	HER 303	HER 304	HER 305	HER 306	HER 307	HER 308	Unit	Conditions
Maximum forward voltage	V_F	1.0			1.3	1.7				V	$I_F=3.0\text{A}$
Maximum DC reverse current	I_R	5.0								μA	$T_J=25^{\circ}\text{C}$ $V=V_{DC}$
		100								μA	$T_J=100^{\circ}\text{C}$, $V=V_{DC}$
Maximum reverse recovery time	t_{RR}	50				75				ns	Note 1
Typical junction capacitance	C_J	50				30				pF	Note 2
Typical thermal resistance	$R_{\theta JC}$	20								$^{\circ}\text{C}/\text{W}$	Note 3

Note:

1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$;
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC;
3. Thermal resistance junction to ambient;
4. Single phase, half wave, 60Hz, resistive or inductive load;
5. For capacitive load, derate current by 20%.

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TYPICAL CHARACTERISTICS

FIG. 1 – FORWARD CURRENT DERATING CURVE

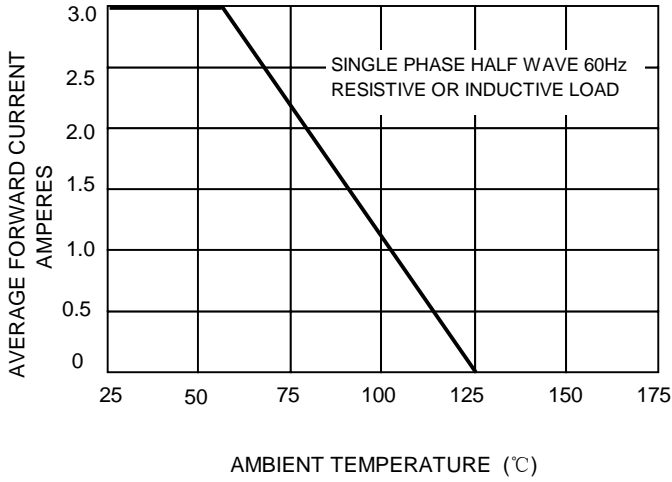


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

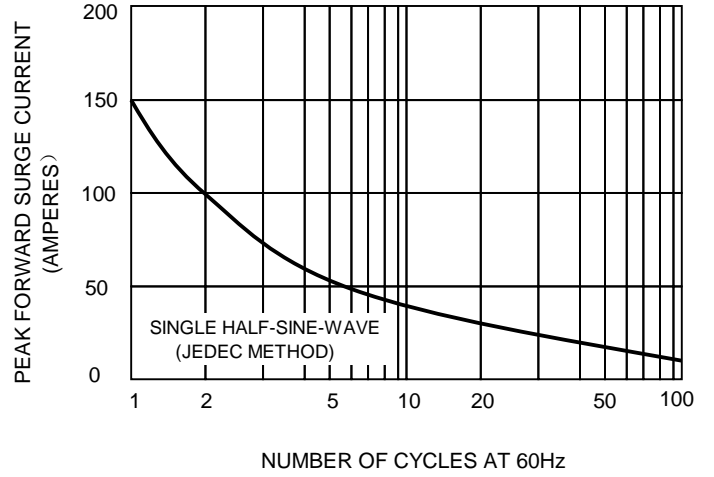


FIG.3 – TYPICAL JUNCTION CAPACITANCE

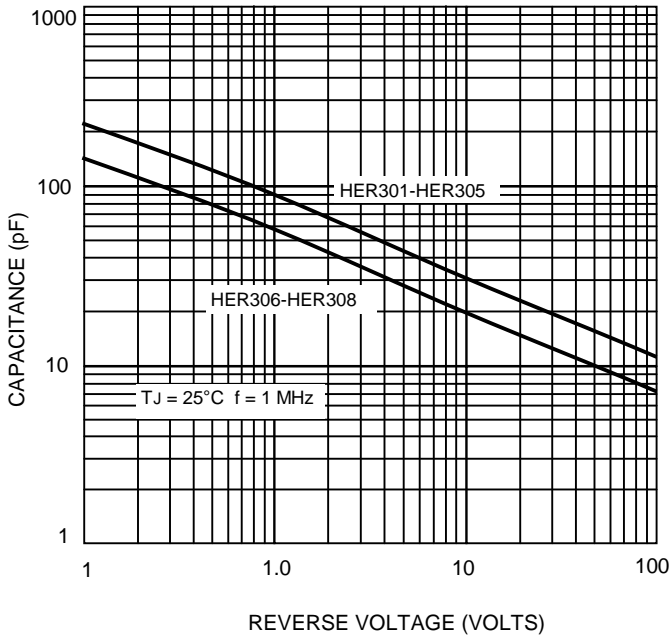


FIG.4-TYPICAL FORWARD CHARACTERISTICS

