

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

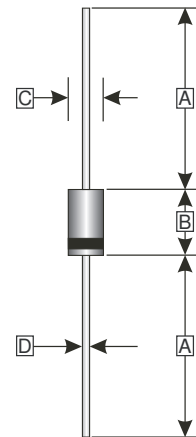
FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- High speed switching

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Methode 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 1.10 grams

DO-27



REF.	Millimeter	
	Min.	Max.
A	25.4 (TYP)	
B	7.20	9.53
C	4.80	5.60
D	1.10	1.32

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.

Parameter	Symbol	Part Number							Unit
		HER 501GR	HER 502GR	HER 503GR	HER 504GR	HER 505GR	HER 506GR	HER 507GR	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average Forward Current @60Hz Half sine wave, Resistance load	I_F	5.0							A
Peak Forward Surge Current, 60HZ Half-sine wave, 1 cycle, $T_A=25^\circ\text{C}$	I_{FSM}	150							A
Maximum Instantaneous Forward Voltage @ 5.0A	V_F	1.0		1.3		1.7		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	5							μA
	$T_A=125^\circ\text{C}$	150							
Maximum Reverse Recovery Time ¹	T_{RR}	50			75			nS	
Typical Junction Capacitance ²	C_J	85			60			pF	
Typical Thermal Resistance	$R_{\theta JA}$	20							$^\circ\text{C/W}$
	$R_{\theta JL}$	10							
Operating & Storage Temperature	T_J, T_{STG}	-55~150							$^\circ\text{C}$

Note:

1. Reverse Recovery Time test condition: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 FORWARD CURRENT DERATING CURVE

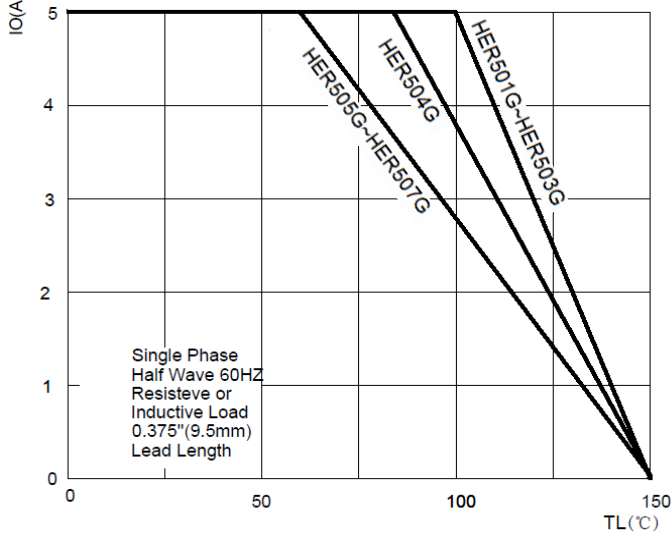


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

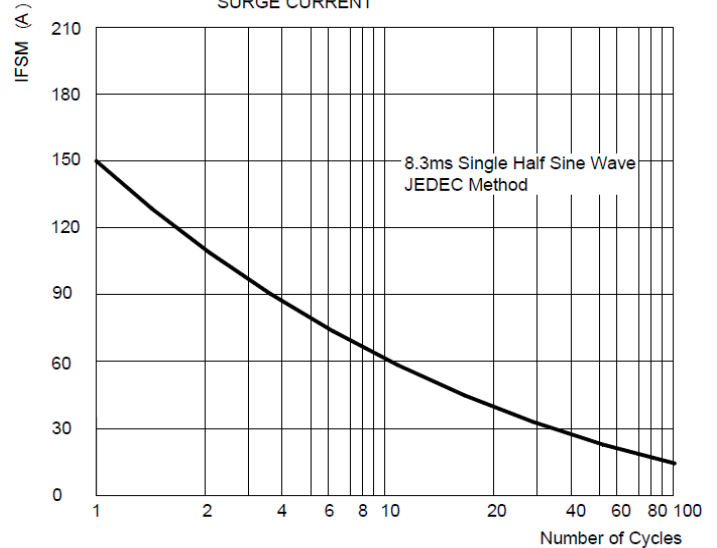


FIG.3 TYPICAL FORWARD CHARACTERISTICS

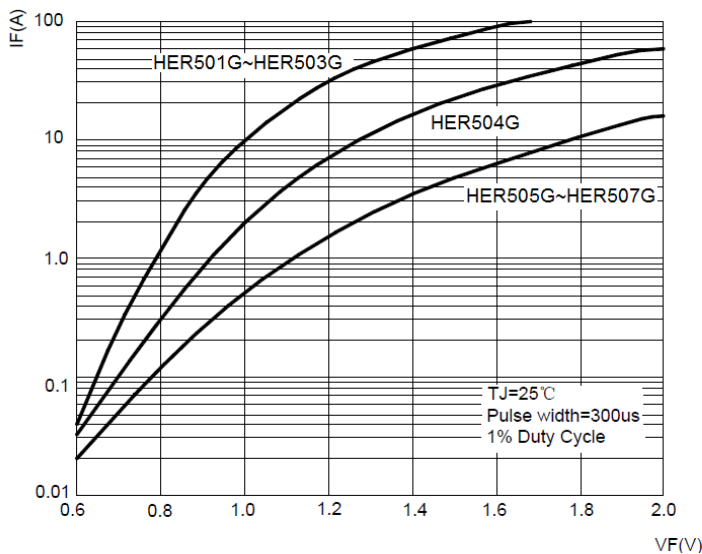


FIG.4 TYPICAL REVERSE CHARACTERISTICS

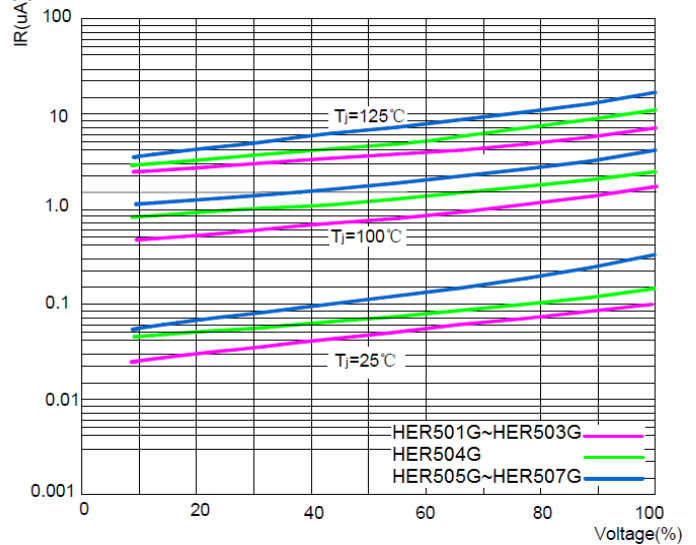


FIG.5 Diagram of circuit and Testing wave form of reverse recovery time

