

DO-15 Plastic-Encapsulate Diodes

High Efficient Rectifier Diodes

Features:

- $I_{F(AV)}$ 2.0A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode

Applications:

- Rectifier

Marking

- HER20X
 X : From 1G To 8G

DO-15



Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	HER20							
				1G	2G	3G	4G	5G	6G	7G	8G
Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	200	300	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V		35	70	140	210	280	420	560	700
Maximum DC Blocking Voltage	V_{DC}	V		50	100	200	300	400	600	800	1000
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, $T_L=50^\circ\text{C}$	2							
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	60							
Operation Junction and Storage Temperature Range	T_J, T_{STG}	$^\circ\text{C}$		-55 ~ +150							

Electrical Characteristics ($T=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	HER20							
				1G	2G	3G	4G	5G	6G	7G	8G
Peak Forward Voltage	V_F	V	$I_F=2.0A$	1.0		1.3		1.7			
Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$							
	I_{RRM2}			$T_a=125^\circ\text{C}$							
Maximum reverse recovery time	t_{rr}	ns	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	50					75		
Typical junction capacitance	C_J	pF	Measured at 1MHz and applied reverse voltage of 4.0V D.C.	30					20		
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ\text{C}/\text{W}$	Between junction and ambient	50							
	$R_{\theta J-L}$		Between junction and lead	25							

Notes:

Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

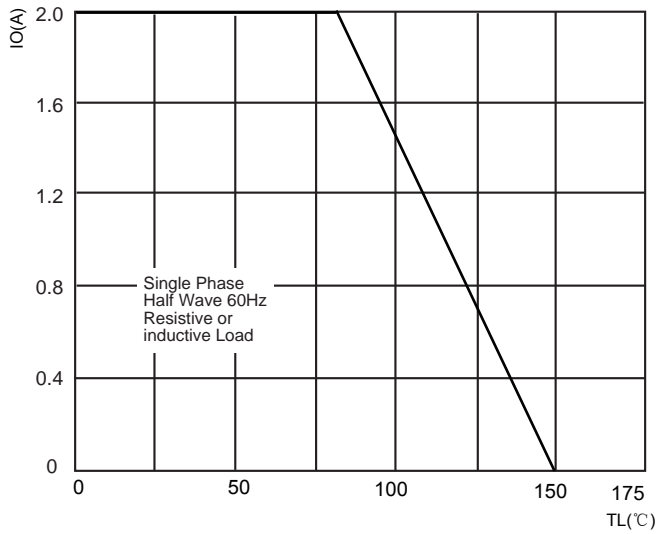


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

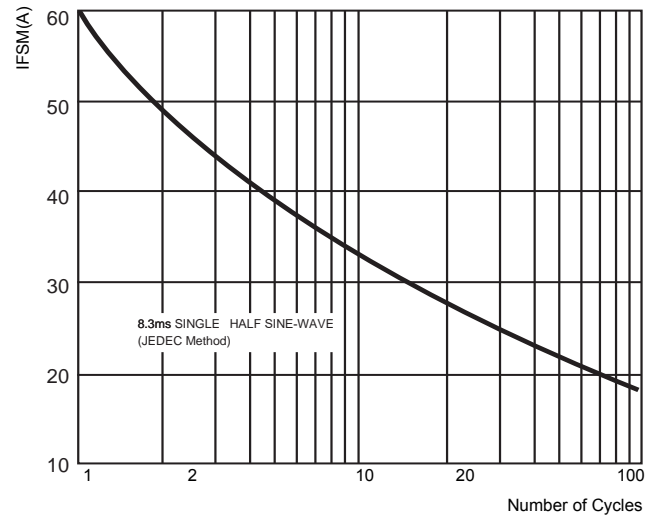


FIG.3: TYPICAL FORWARD CHARACTERISTICS

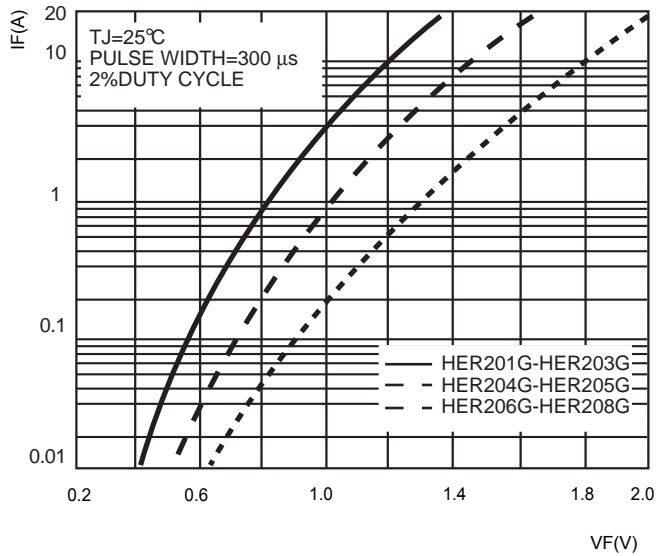


FIG.4: TYPICAL REVERSE CHARACTERISTICS

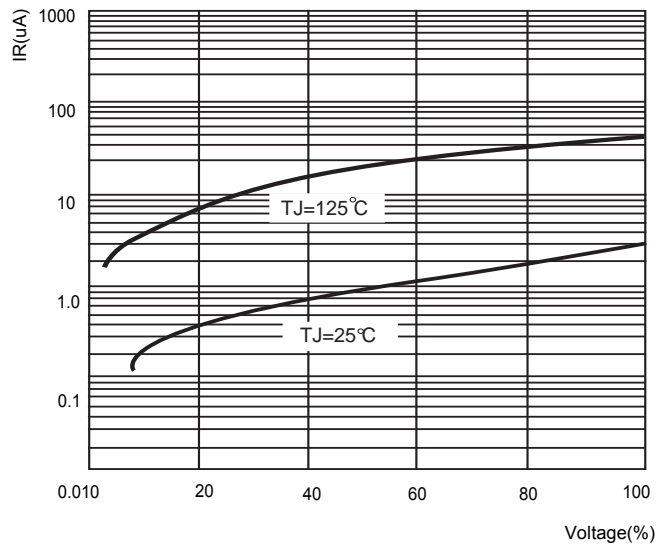
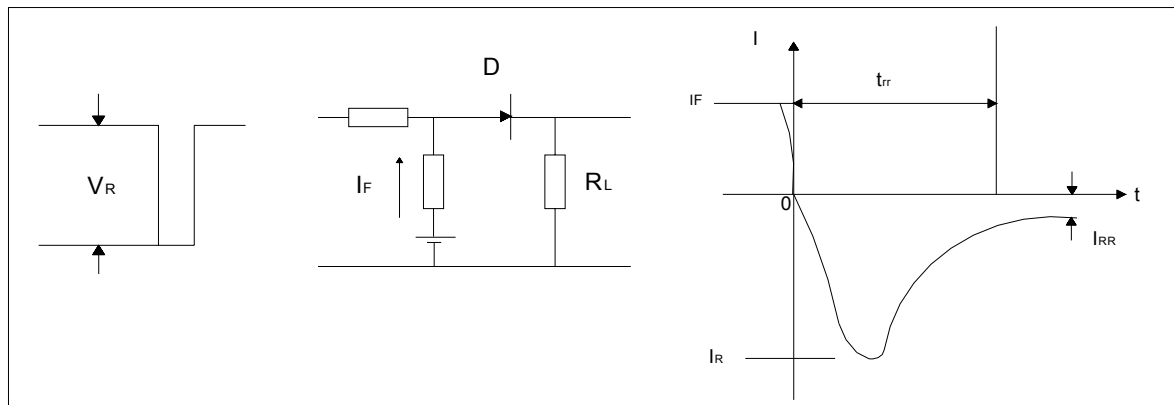
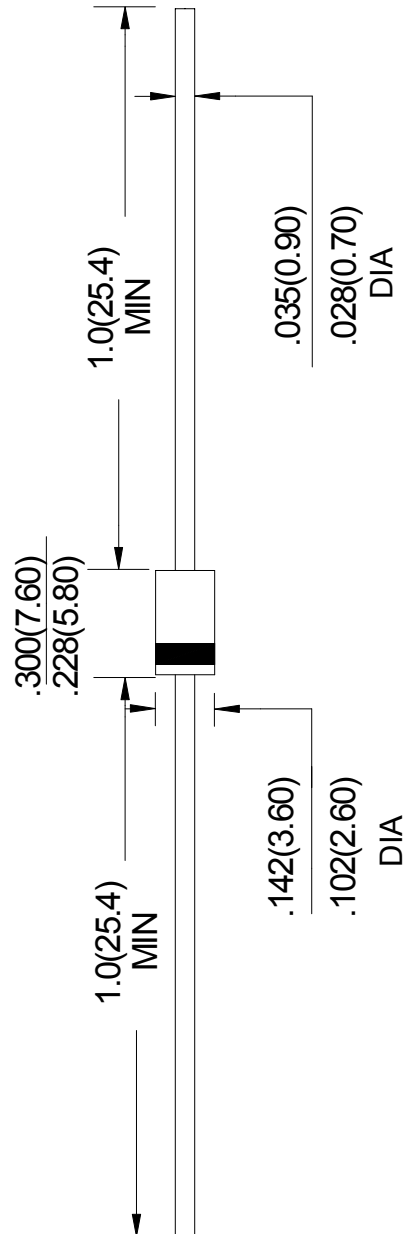


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



DO-15 Package Outline Dimensions



Unit: in inches (millimeters)