Elektronische Bauelemente

HER101 ~ HER107

VOLTAGE 50 ~ 1000 V

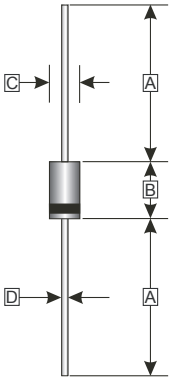
1 A, High Efficiency Rectifiers

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

DO-41



REF.	Millimeter	
	Min.	Max.
A	25.4 (TYP)	
B	4.10	5.21
C	2.00	2.72
D	0.70	0.90

PACKAGING INFORMATION

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.34 grams (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

T_{AMB} = 25°C ambient temperature unless otherwise specified.
Single phase half-wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

PARAMETERS	SYMBOL	PART NUMBERS							UNITS	TESTING CONDITIONS
		HER 101	HER 102	HER 103	HER 104	HER 105	HER 106	HER 107		
Recurrent Reverse Voltage (Max.)	V_{RRM}	50	100	200	400	600	800	1000	V	
RMS Voltage (Max.)	V_{RMS}	35	70	140	280	420	560	700	V	
DC Blocking Voltage (Max.)	V_{DC}	50	100	200	400	600	800	1000	V	
Instantaneous Forward Voltage (Max.)	V_F	1.00			1.30	1.70			V	I_F = 1A
Average Forward Rectified Current (Max.)	I_O	1.0							A	0.375" (9.5mm) lead length @ T_A = 55°C
Peak Forward Surge Current	I_{FSM}	30							A	8.3 ms single half sine-wave superimposed on rated load (JEDEC method)
DC Reverse Current (Max.)	I_R	5.0							μA	$V_R = V_{DC}$, T_A=25°C
		150								V_R=V_{DC}, T_A=100°C
Reverse Recovery Time (Max.)	T_{RR}	50				70			nS	I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
Junction Capacitance (Typ.)	C_J	20				15			pF	f=1MHz and applied 4V DC reverse voltage
Storage Temperature Range	T_{STG}	-65 ~ 150							°C	

RATINGS AND CHARACTERISTIC CURVES (HER101 THRU HER107)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

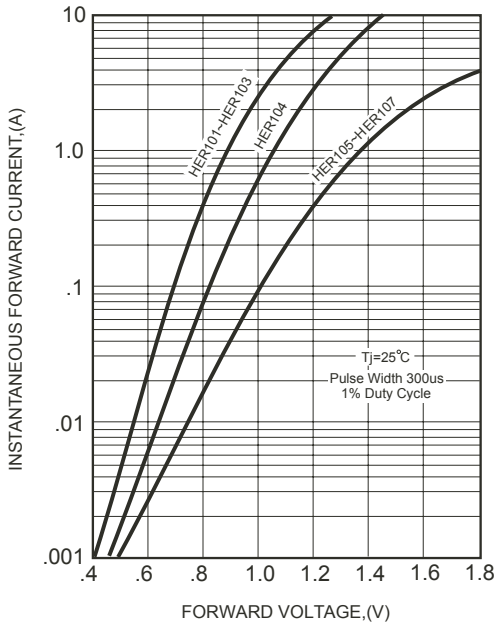


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

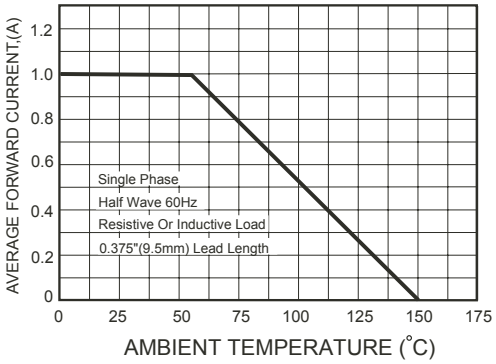
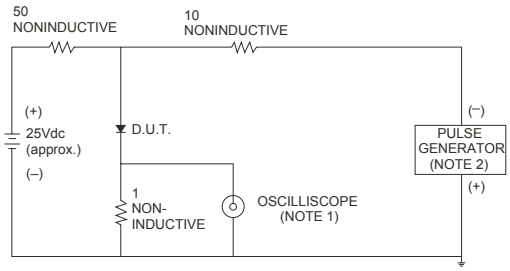


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

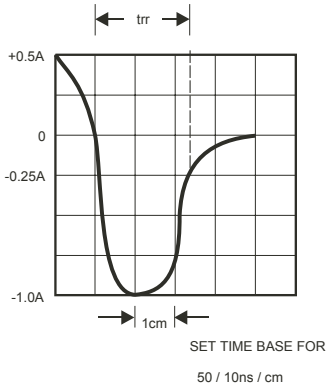


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

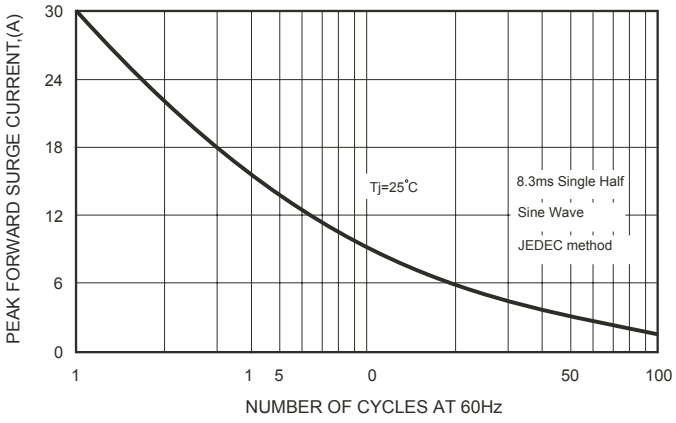


FIG.5-TYPICAL JUNCTION CAPACITANCE