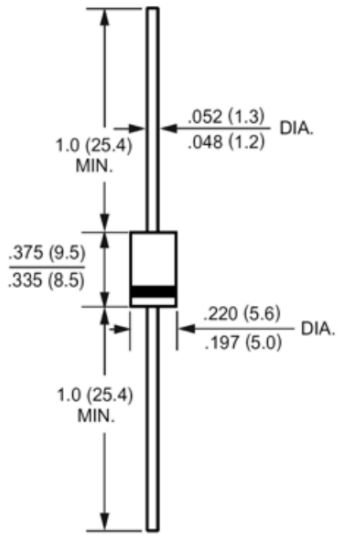
PECLERS®

HER301 THRU HER308

HIGH EFFICIENCY RECTIFIER

REVERSE VOLTAGE: 50 to 1000 VOLTS
FORWARD CURRENT: 3.0 AMPERE

DO-201AD



Dimensions in inches and (millimeters)

FEATURES

Low power loss,high efficiency
Low forward voltage drop
Low leakage
High current
capability High
speed switching
High forward surge
capability High reliability.

MECHANICAL DATA

Case: Molded plastic, DO-201AD
Epoxy: UL 94V-O rate flame retardant
Terminals: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
Polarity: Band denotes cathode
Mounting position: Any Weight: 0.04ounce, 1.1gram

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60H_Z, resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	HER301	HER302	HER303	HER304	HER305	HER306	HER307	HER308	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T_A=50℃	$I_{(AV)}$	3.0								Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150								Amp
Maximum Forward Voltage at 3.0A and T_A=25℃	V_F	1.0			1.3		1.7			Volts
Maximum Reverse Current at T_J=25℃ at Rated DC Blocking Voltage T_J=100℃	I_R	10.0 100								uAmp
Typical Junction Capacitance (Note 1)	C_J	80					50			pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	50					75			nS
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	20								℃/W
Operating and Storage Temperature Range	T_J , Tstg	-55 to +150								℃

NOTES:
1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.
2- Reverse Recovery Test Conditions： I_F=.5A， I_R=1A， I_{RR}=.25A.
3- Thermal Resistance from Junction to Ambient at 0.375"(9.5mm) lead length P.C.B. Mounted.

RATINGS AND CHARACTERISTIC CURVES

FIG.1-MAXIMUM FORWARD CURRENT DERATING CURVE

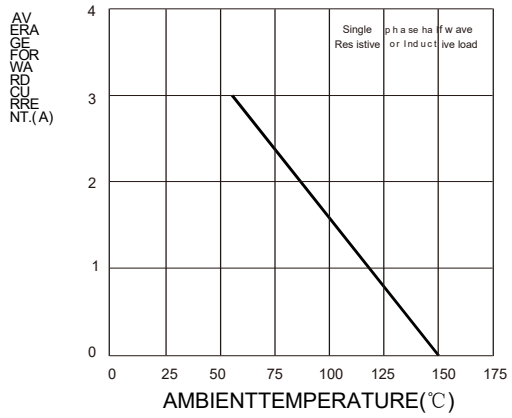


Fig. 2- Peak Forward Surge Current

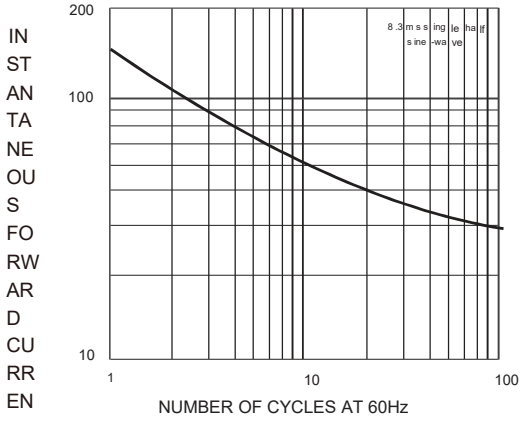


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

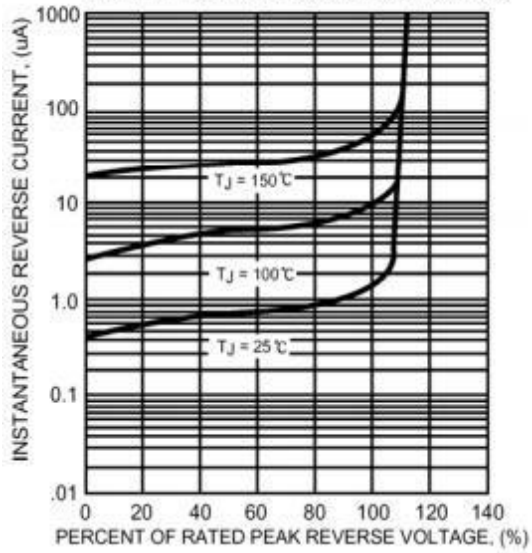


Fig. 4- Typical Forward Characteristics

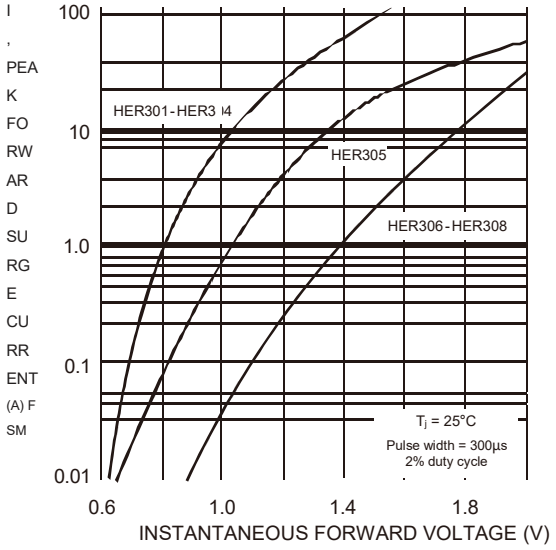
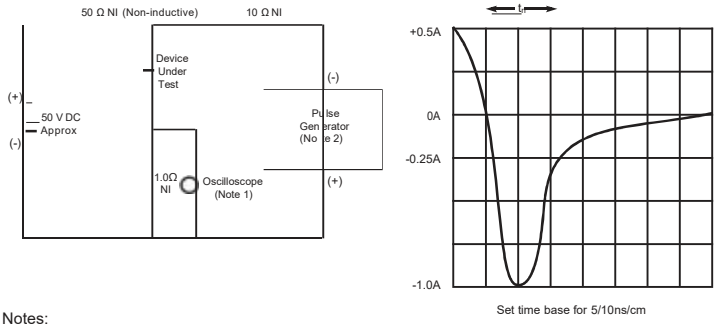


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit



Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
2. Rise Time = 10ns max. Input Impedance = 50Ω .

Fig. 4 Typical Junction Capacitance