

## HIGH EFFICIENCY RECTIFIERS

VOLTAGE RANGE: 50--- 1000 V

CURRENT: 5.0 A

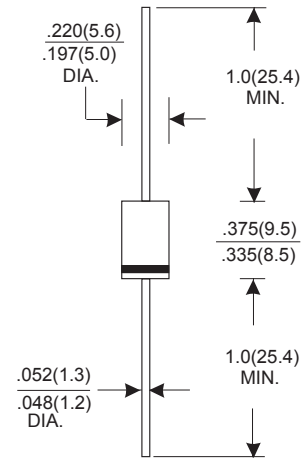
### FEATURES

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- High reliability
- Low forward voltage drop
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed: 260 C/10 seconds at terminals
- Component in accordance to RoHs 2002/95/EC and WEEE 2002/96/EC

### MECHANICAL DATA

- Case style: DO-27 plastic molded
- Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- Polarity:Color band denotes cathode end
- Mounting Position:Any

### DO-27



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase,half wave,60 Hz,resistive or inductive load.

For capacitive load,derate by 20%.

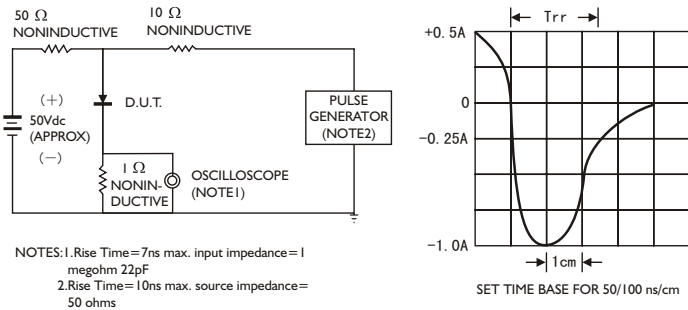
		HER 501	HER 502	HER 503	HER 504	HER 505	HER 506	HER 507	HER 508	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current.375"(9.5mm) Lead Length at Ta=55°C	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200.0								A
Maximum Instantaneous Forward Voltage at 2.0A	$V_F$	1.0		1.3		1.7			V	
Maximum reverse current at rated DC blocking voltage	@T <sub>A</sub> =25	10.0								μA
	@T <sub>A</sub> =100	150.0								
Maximum reverse recovery time (Note1)	$t_{rr}$	50				75				ns
Typical junction capacitance (Note2)	$C_J$	70				50				pF
Typical thermal resistance	$R_{θJA}$	30								°C/W
Operating junction temperature range	$T_j$	- 65 ---- + 150								°C
Storage temperature range	$T_{STG}$									

1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

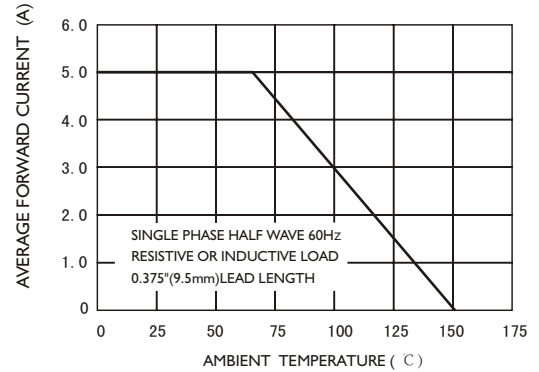
2.Thermal Resistance from Junction to Ambient.375"(9.5mm) lead length.

# RATINGS AND CHARACTERISTIC CURVES

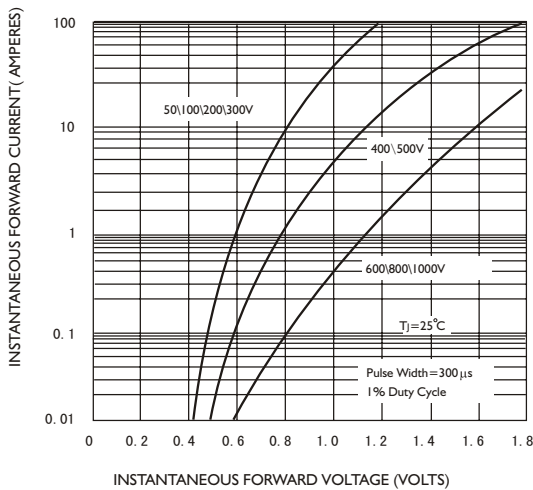
**FIG.1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



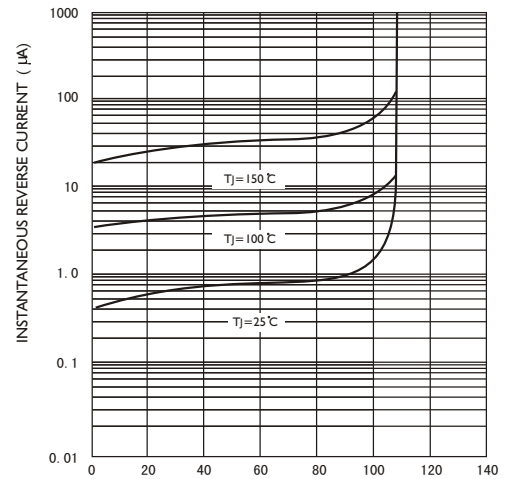
**FIG.2 -- FORWARD DERATING CURVE**



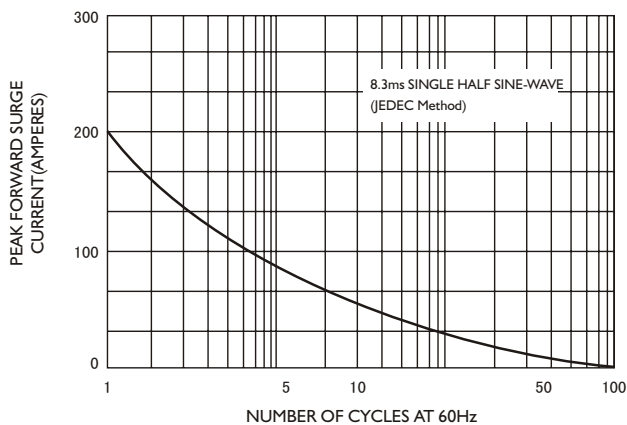
**FIG.3 -- TYPICAL FORWARD CHARACTERISTIC**



**FIG.4-TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.6-TYPICAL JUNCTION CAPACITANCE**

