

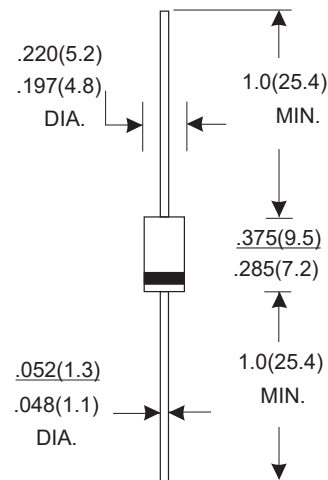
## DO-27 PLASTIC SILICON RECTIFIERS

### 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 2015/863 and WEEE 2012/19/EU

### 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



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	HER	HER	HER	HER	HER	HER	HER	HER	UNITS
		501	502	503	504	505	506	507	508	
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 $T_A=55^\circ\text{C}$	$I_{F(AV)}$	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	$I_R$	@ $T_A=25^\circ\text{C}$ 10.0								$\mu\text{A}$
		@ $T_A=100^\circ\text{C}$ 150.0								
Maximum reverse recovery time (Note1)	$t_{rr}$	50				75				ns
Typical junction capacitance (Note2)	$C_J$	85				60				pF
Typical thermal resistance	$R_{\theta JA}$	30								$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_j$	- 55 ---- + 150								$^\circ\text{C}$
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:  $I_o$ - $T_a$  Curve

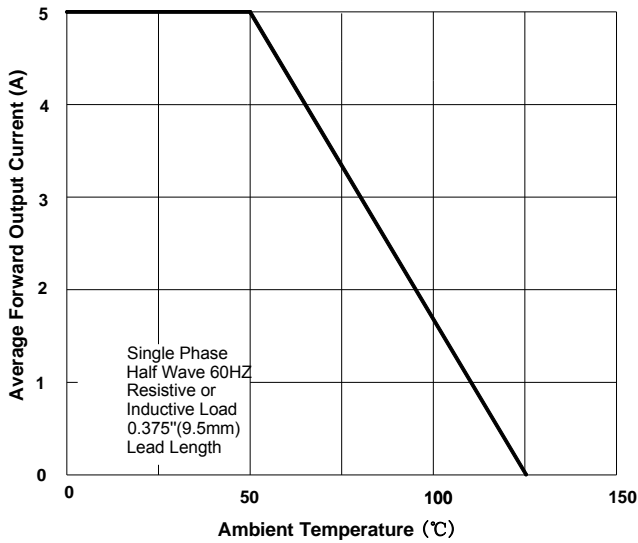


FIG.2: Surge Forward Current Capability

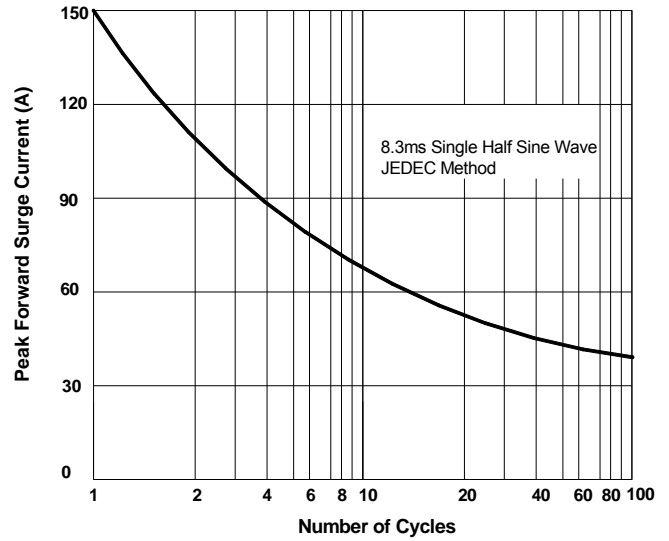


FIG.3: Forward Voltage

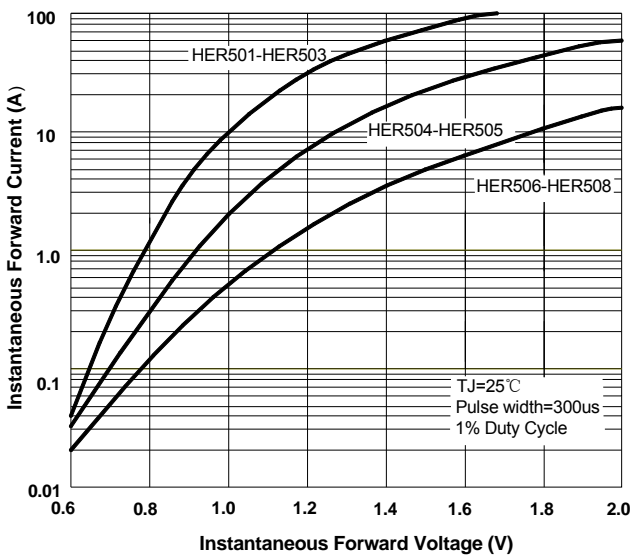


FIG.4: Typical Reverse Characteristics

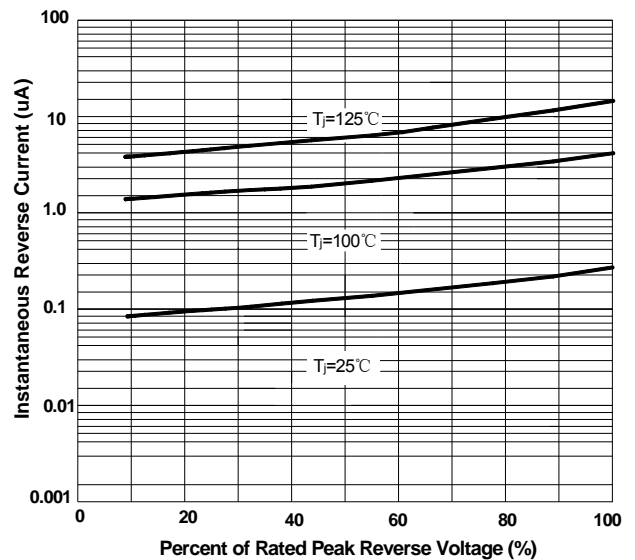


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

