

## HIGH EFFICIENCY RECTIFIERS

VOLTAGE RANGE: 50--- 1000 V

CURRENT: 1.0 A

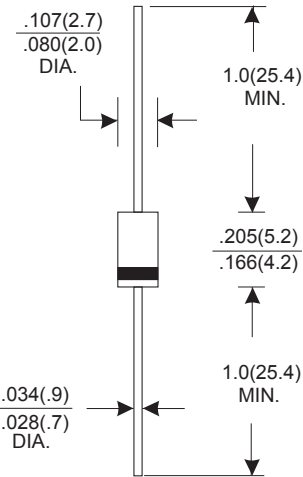
### FEATURES

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- High speed switching
- Low forward voltage drop
- High forward surge current capability
- Component in accordance to RoHs 2002/95/EC and WEEE 2002/96/EC

### MECHANICAL DATA

- Case style: DO-41 plastic molded
- Terminals: Axial lead ,solderable per MIL- STD-202, Method 208
- Polarity:Color band denotes cathode end
- Mounting Position:Any

### DO-41



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%.

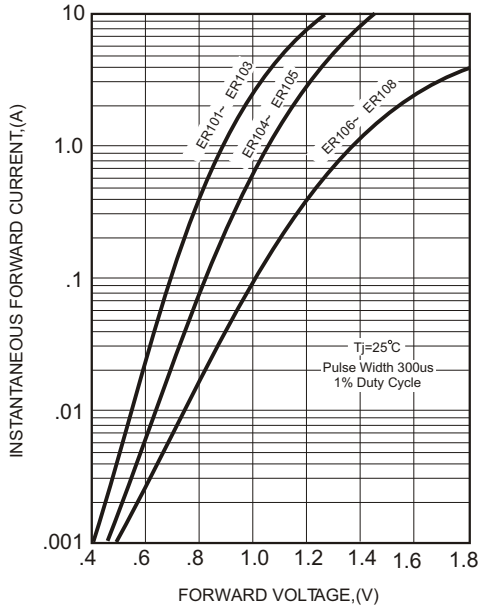
		HER 101	HER 102	HER 103	HER 104	HER 105	HER 106	HER 107	HER 108	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current.375"(9.5mm) Lead Length at Ta=50 C	$I_{F(AV)}$	1.0								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load @Tj=125°C	$I_{FSM}$	30.0								A
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.0		1.3		1.7			V	
Maximum reverse current at rated DC blocking voltage	@T <sub>A</sub> =25	5.0								μA
	@T <sub>A</sub> =100	150.0								
Maximum reverse recovery time	$t_{rr}$	50					75			ns
Typical junction capacitance (Note1)	$C_J$	20								pF
Typical thermal resistance(Note2)	$R_{θJA}$	50								°C/W
Operating junction temperature range	$T_j$	- 55 ---- + 125								°C
Storage temperature range	$T_{STG}$	- 55 ---- + 150								°C

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

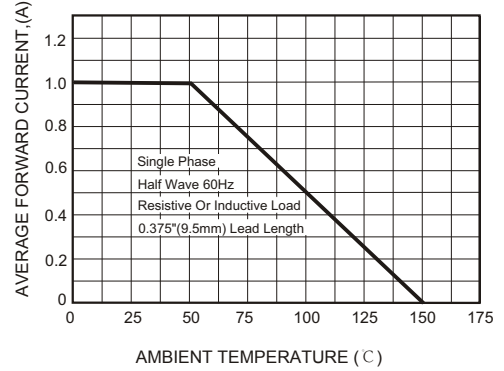
2. Thermal Resistance from Junction to Ambient.375"(9.5mm) lead length.

# RATINGS AND CHARACTERISTIC CURVES

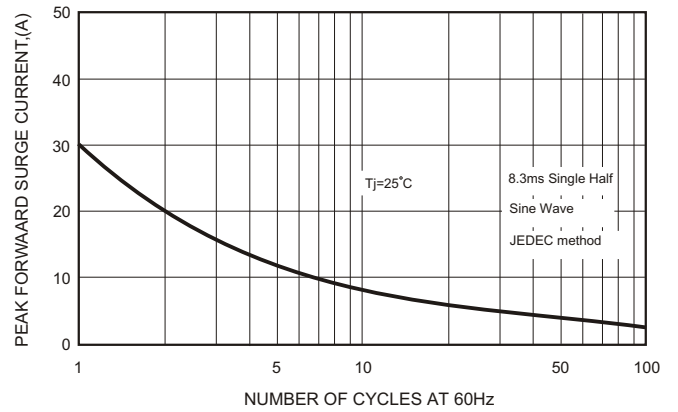
**FIG.1-TYPICAL FORWARD CHARACTERISTICS**



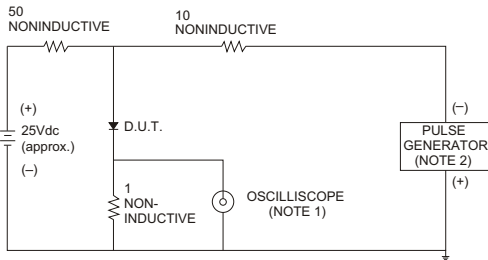
**FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE**



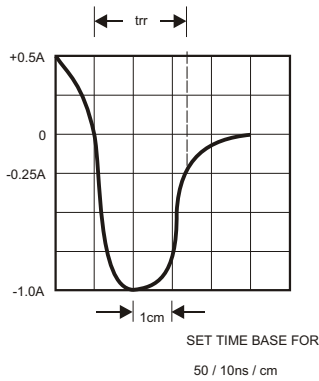
**FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**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.5-TYPICAL JUNCTION CAPACITANCE**

