

HIGH EFFICIENCY RECTIFIER

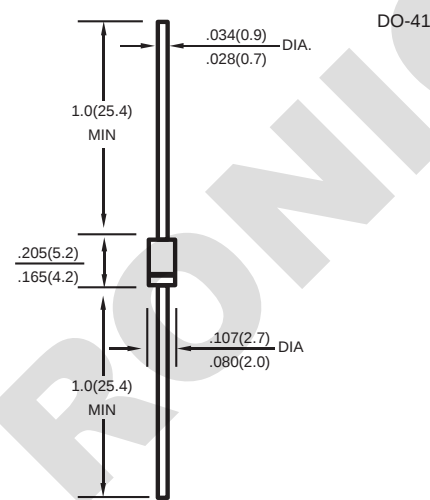
FEATURES

- Low power loss,high efficiency.
- Low leakage.
- High speed switching.
- High current capability.
- High surge capability.
- High temperature soldering guaranteed:
260°C/10 seconds/0.375" (9.5mm)lead length
at 5 lbs (2,3kg) tension

MECHANICAL DATA

- **Case:** Transfer molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Polarity:** Color band denotes cathode end
- **Lead:** Plated axial lead ,solderable per MIL-STD-202E
method 208C
- **Mounting position:** Any
- **Weight:** 0.012 ounce, 0.33 gram

VOLTAGE RANGE 50 to 800 Volts
CURRENT 1.0 Ampere



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load derate current by 20%.

	SYMBOLS	HER 101	HER 102	HER 103	HER 104	HER 105	HER 106	HER 107	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	600	800	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	560	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	800	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm)Lead length at T _A =50°C	I _(AV)	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							Amps
Maximum Instantaneous Forward Voltage Drop at 1.0A	V _F	1.0			1.3		1.5	1.7	Volts
Maximum DC Reverse Currentat rated DC blocking voltage T _A =25°C	I _R	5.0							μA
Maximum Full Load Reverse Current, full cycle average 0.375" (9.5mm) lead length at T _L =55°C	I _{R(AV)}	100							μA
Maximum Reverse Recovery Time(NOTE 1)	t _{rr}	50					70		nS
Typical Junction Capacitance(NOTE2)	C _J	15					12		pF
Typical Thermal Resistance(NOTE3).	R _{θJA}	60							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150							°C

NOTES:

1. Test condition: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$.
2. Measured at 1MHz and applied reverse of 4.0volts.
3. Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, P.C.B. mounted.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

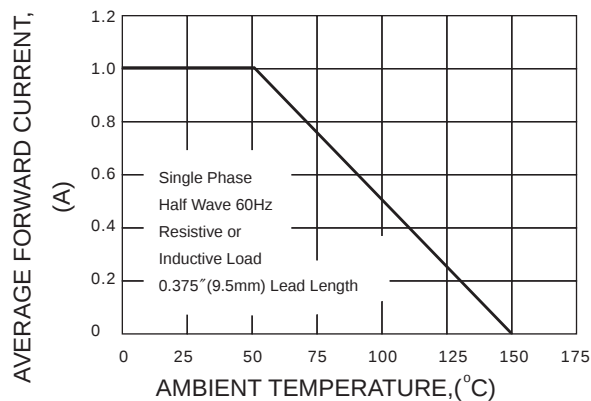


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

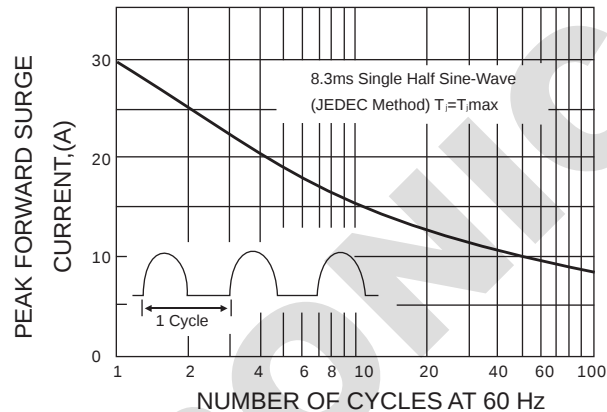


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

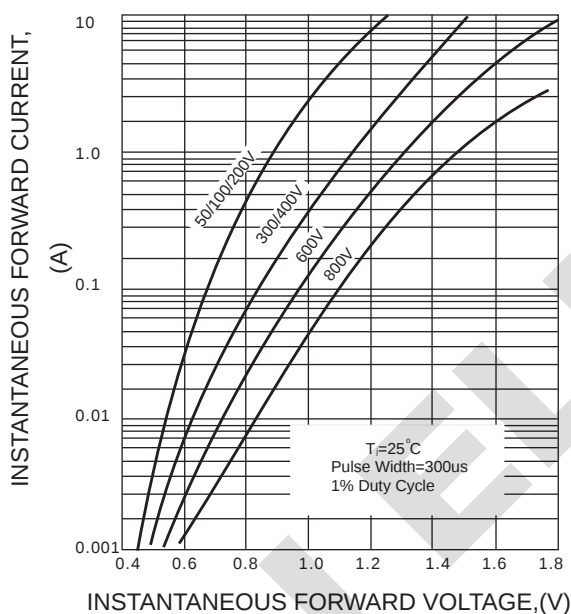


FIG.4-TYPICAL REVERSE CHARACTERISTICS

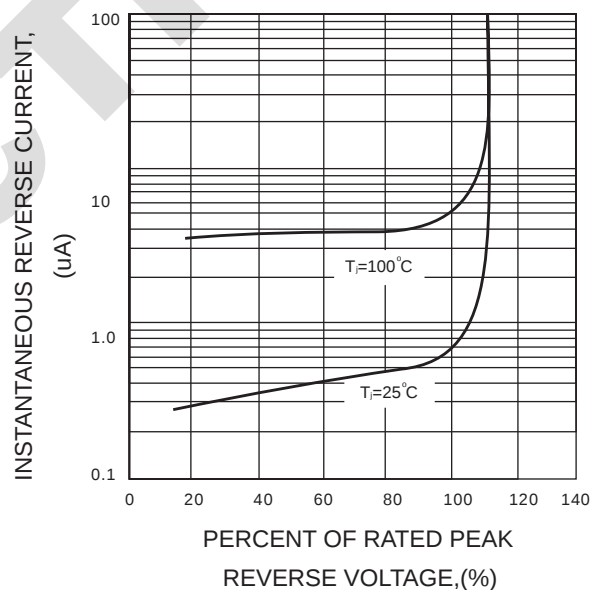


FIG.5-TYPICAL JUNCTION CAPACITANCE

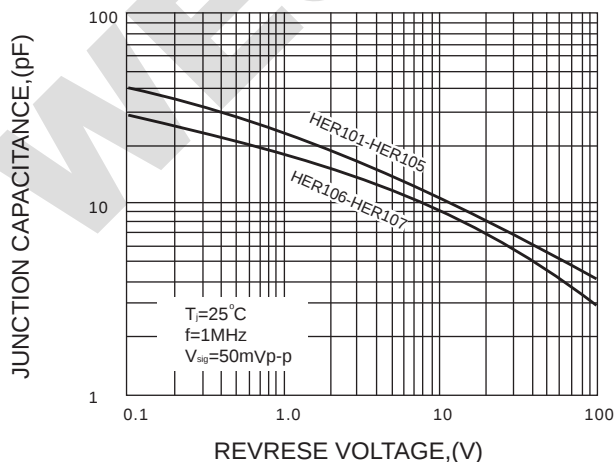


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

