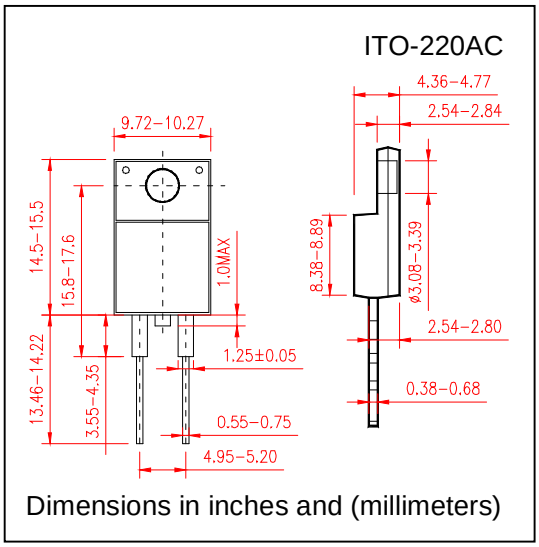
HIGH EFFICIENCY GLASS PASSIVATED RECTIFIER

HERF1601 THRU HERF1607

VOLTAGE RANGE **50 to 1000 Volts**
CURRENT **16.0 Ampere**

FEATURES

- High speed switching
- Glass passivated chip junction
- Low power loss for high efficiency
- Low leakage
- High surge capacity
- High temperature soldering guaranteed
- 250℃/10 second, 0.16”(4.06mm) lead length
- Also available in reverse polarity, add the “R” Suffix, i.e. HERF1601R
- Also available in the single chip version, HER1601



MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: solderable per MIL-STD-202E method 208C
- Polarity: as marked
- Mounting position: Any, 5 in-lbs Torque Max
- Weight: 0.08 ounce, 2.24 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	HERF 1601	HERF 1602	HERF 1603	HERF 1604	HERF 1605	HERF 1606	HERF 1607	UNIT
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 At Tc=100℃	$I_{(AV)}$	16.0							Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	225							Amps
Maximum Instantaneous Forward Voltage per at 16.0A	V_F	1.0			1.3		1.5	1.7	Volts
Maximum DC Reverse Current at rated DC Blocking Voltage at T_A = 25℃	I_R	10							μA
Maximum DC Reverse Current at rated DC Blocking Voltage at T_A = 125℃	I_R	500							μA
Maximum Reverse Recovery Time Test conditions I_F=0.5A, I_R=1.0A, I_{RR}=0.25A	t_{rr}	70					100		nS
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	40							pF
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	3.0							℃/W
Operating Junction Temperature	T_J	(-55 to +150)							℃
Storage Temperature Range	T_{STG}	(-55 to +150)							℃

NOTES:
1. Unit mounted on heatsink

E-mail: sales@cnmic.com **Web Site:** www.cnmic.com

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RATING AND CHRACTERISTIC CURVES HERF1601 THRU HERF1607

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

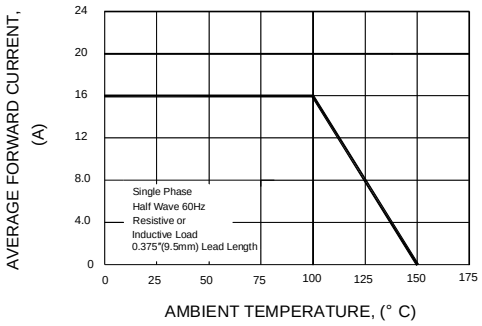


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

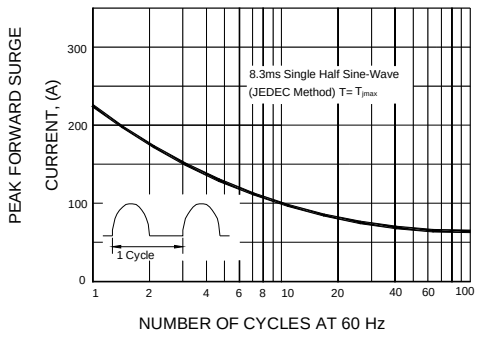


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

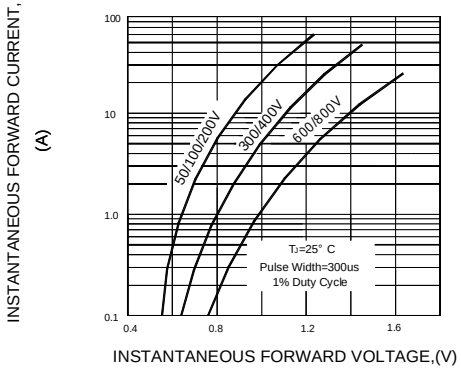


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER LEG

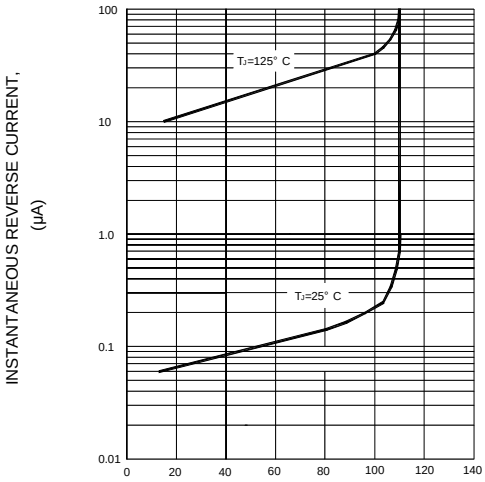
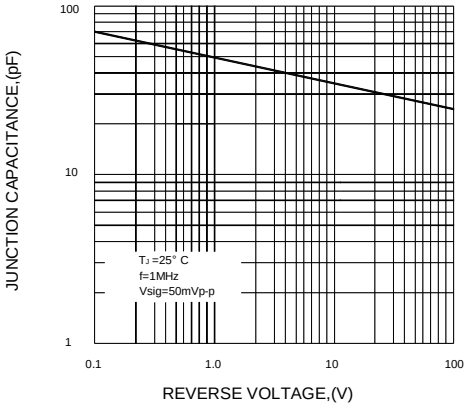
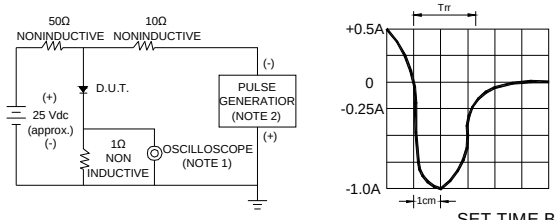


FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG



F1G.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



SET TIME BASE FOR 50/100ns/cm

NOTES : 1.Rise Time=7ns mas. Input Impedance= 1 magohm. 22pF
2.Rise time=10ns max. Source Impedance= 50 ohms

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