HIGH EFFICIENCY RECTIFIERS

HER601 - HER608

R-6

Axial Lead
Plastic Package

Polarity : Colour band denotes cathode end

FEATURES:

1) High Speed Switching for High Efficiency
2) Low Reverse Leakage
3) High Forward Surge Current Capability
4) The Plastic Package Carries Underwriters Laboratory Flammability Classification 94V-0
5) High Temperature Soldering Guaranteed :
   250°C/10 seconds,0.375”(9.5mm) lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA:

1) Case: R-6 Molded Plastic Body
2) Polarity: Color Band denotes Cathode end
3) Lead: Plated axial lead, solderable per MIL-STD-750, Method 2026
4) Weight : 2.05 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

A. Ratings at 25□ambient temperature, unless otherwise specified
B. Single Phase, half wave, 60Hz, resistive or inductive load
C. For capacitive load derate current by 20%

CHARACTERISTICS	SYMBOL	HER 601	HER 602	HER 603	HER 604	HER 605	HER 606	HER 607	HER 608	UNIT
Maximum Repetitive 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 0.375" (9.5mm) lead length at T_A=50°C	$I_{(AV)}$	6.0								A
Peak Forward Surge Current 8.3ms Single Half Sine -Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	200								A
Maximum Instantaneous Forward Voltage at 6.0A	V_F	1.0			1.4		1.85			V
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A=25°C	I_R	10.0								μA
Rated DC Blocking Voltage T_A=100°C		250.0								
Maximum reverse recovery time (Note 1)	trr	50					100			ns
Typical Junction Capacitance (Note 2)	Cj	100					65			pF
Typical Thermal Resistance (Note 3)	$R_{\theta J-A}$	10								°C/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-65 to +150								°C

1.Reverse Recovery Test Conditions:If=0.5A,Ir=1.0A,Irr=0.25A.
2.Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
3.Thermal Resistance From Junction to Ambient at. 375”(9.5mm) lead length, P.C. board mounted

CHARACTERISTICS CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

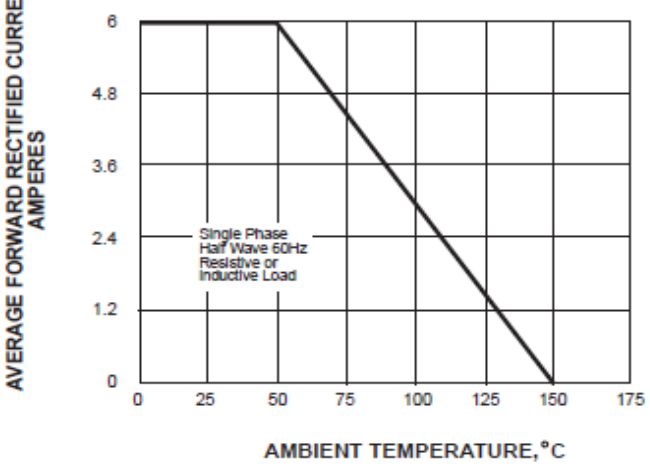


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

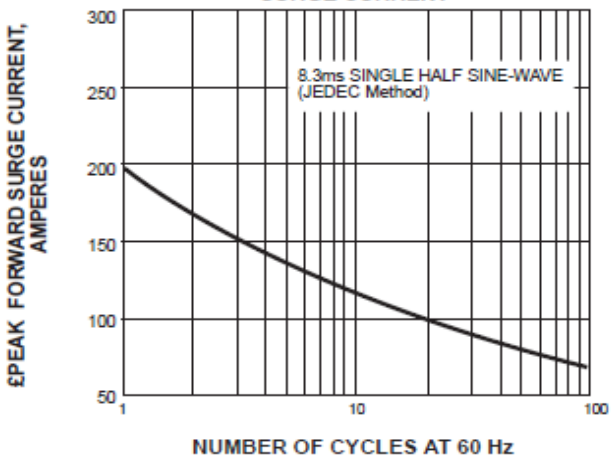


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

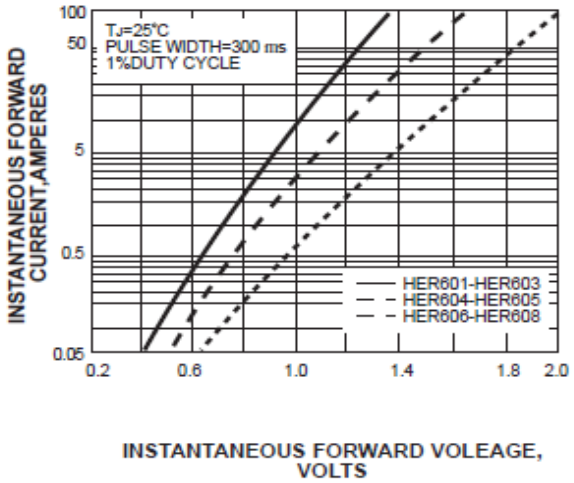


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

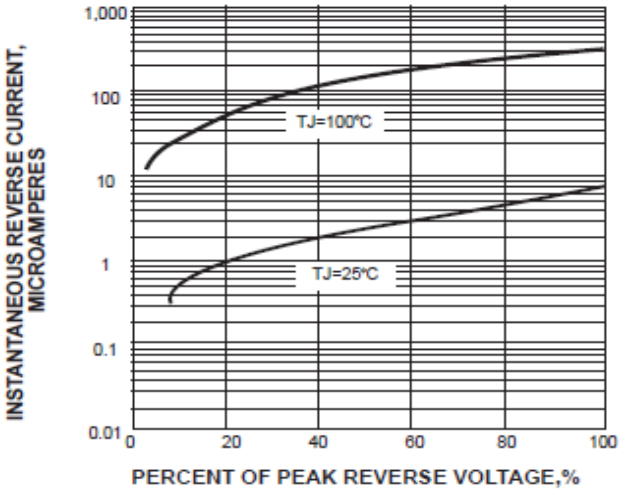


FIG. 5-TYPICAL JUNCTION CAPACITANCE

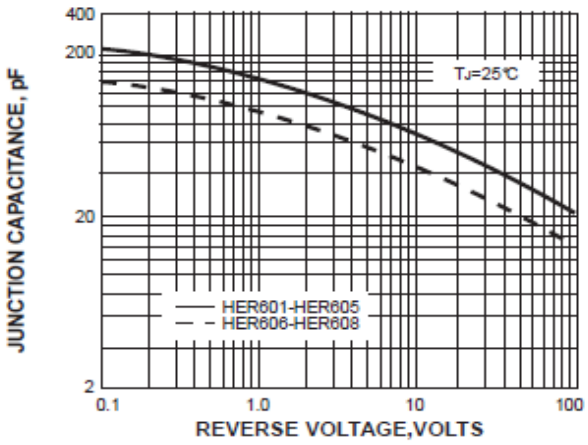
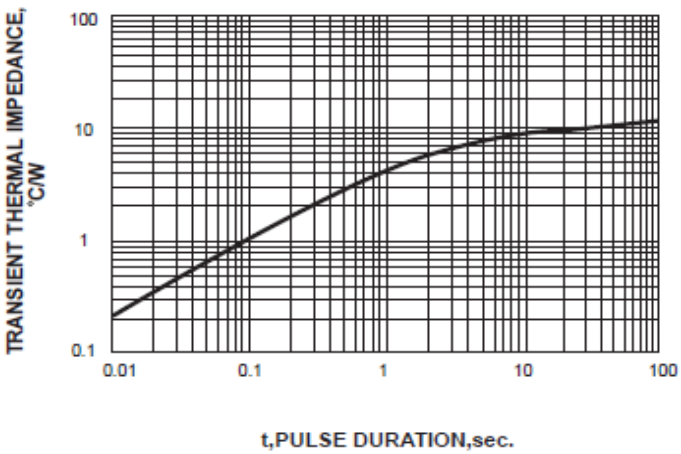
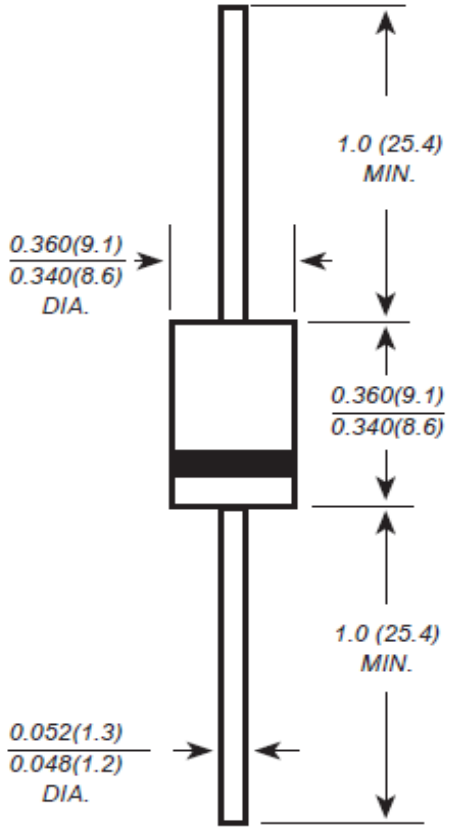


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



PACKAGE OUTLINE AND DIMENSION

R-6



Dimensions in inches and (millimeters)

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.

2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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Continental Device India Pvt.Limited
C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119
email@cdil.com www.cdil.com
CIN No. - U32109DL1964PTC004291