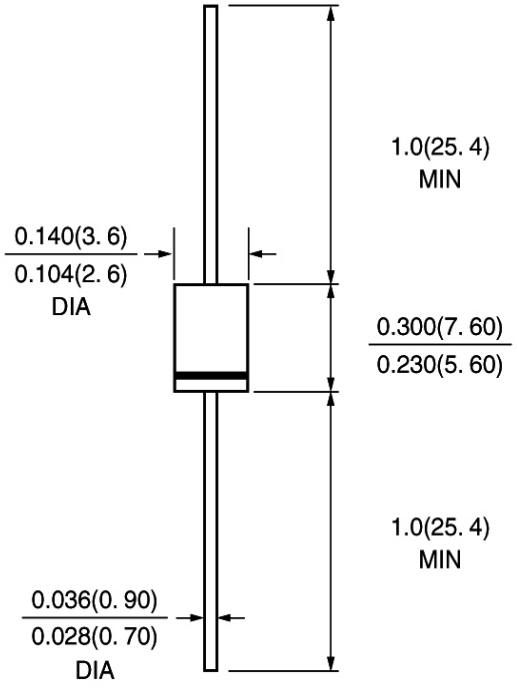
CURRENT 3.0 Ampere
VOLTAGE RANG 50 to 1000 Volts

HER301 THRU HER308

DO-15\DO-204AC



Dimensions in inches and (millimeters)

FEATURES

- Low coat construction
- Fast switching for high efficency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
  260 /10 secods/.375 (9.5mm)lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.042ounce, 1.19 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	HER 301	HER 302	HER 303	HER 304	HER 305	HER 306	HER 307	HER 308	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375 (9.5mm) lead length at T_A= 50	$I_{(AV)}$	3.0								Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	125								Amps
Maximum Instantaneous Forward Voltage @ 3.0A	V_F	1.0			1.3		1.5	1.7		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 25	I_R	10								µA
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 125	I_R	500								µA
Maximum Full Load Recovery Current,full cycle average 0.375 (9.5mm)lead length at TL=55	$IR_{(AV)}$	150								µA
Maximum Reverse Recovery Time(NOTE 1)	trr	50					75			ns
Typical Thermal Resistance (NOTE 2)	C_J	70					50			PF
Typical Thermal Resistance(NOTE 3)	$R_{\theta JA}$	20								/W
Operating Junction Temperature Range	T_J ,T_{STG}	(-55 to +150)								

Notes:
1 Test Condition:IF=0.5A,IR=1.0A,IRR=0.25A
2. Measured at 1.0 MHz and applied reverse of 4.0 V
3 Thermal resistance from junction to ambient with .375 (9.5mm)lead length, P.C.B. mounted. .

CURRENT 3.0 Ampere
VOLTAGE RANG 50 to 1000 Volts

HER301 THRU HER308

RATING AND CHRACTERISTIC CURVES HER301 Thru HER308

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

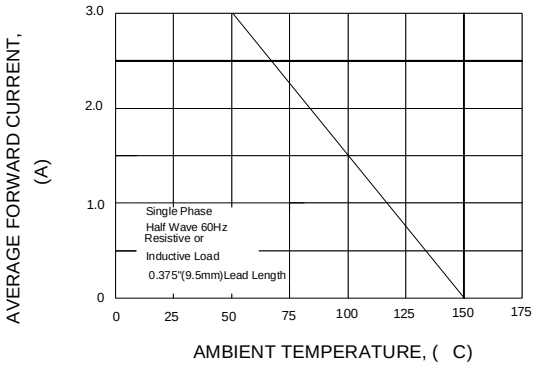


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

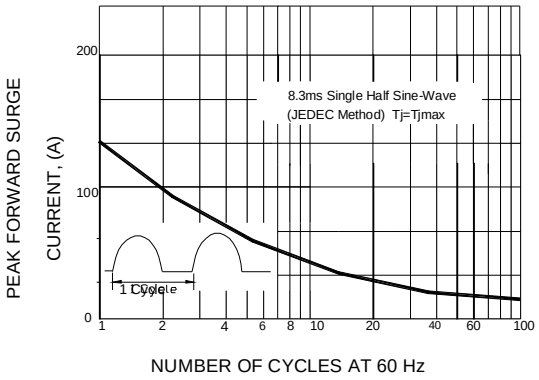


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

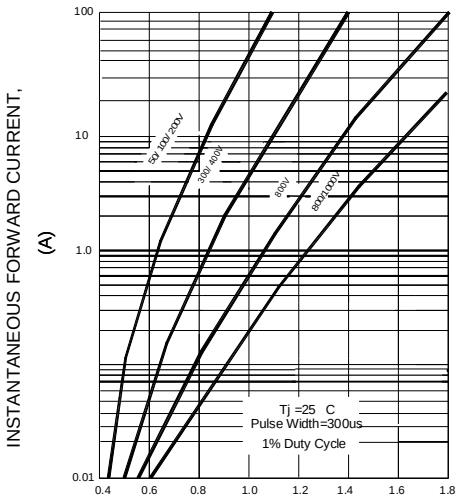


FIG.5-TYPICAL JUNCTION CAPACITANCE

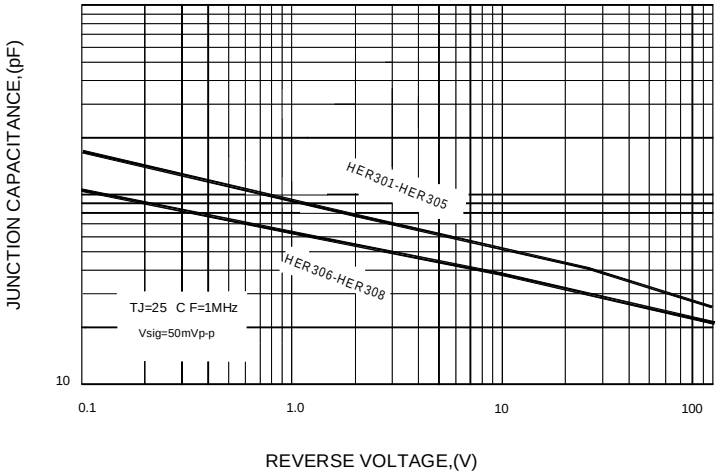


FIG.4-TYPICAL REVERSE CHARACTERISTICS

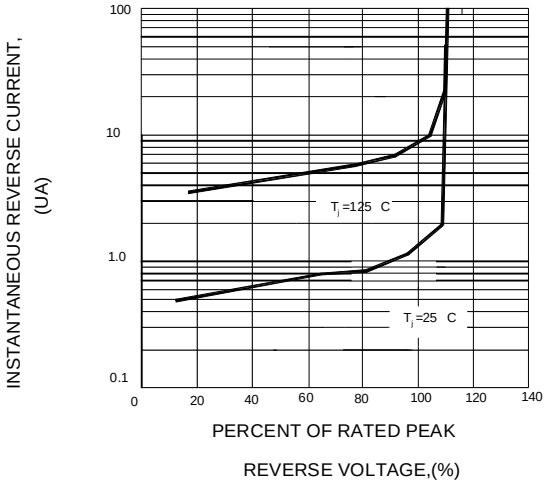
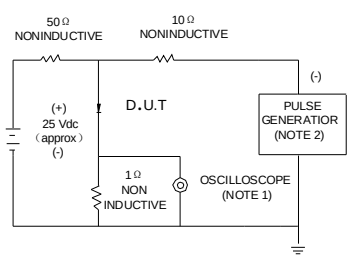
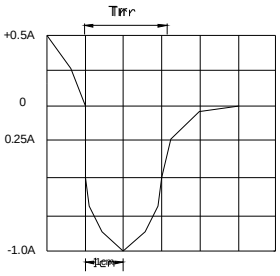


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE REXOVERY TIME CHARACTERISTIC





NOTE: 1.Rise Time =7ns max.Input Impedance=1megohm.22pF
2.Rise time=10ns max.Source Impedance=50 ohms

SET TIME BASE FOR 50 /100NS /cm