



WILLAS



<9F&\$%

·H<FI·

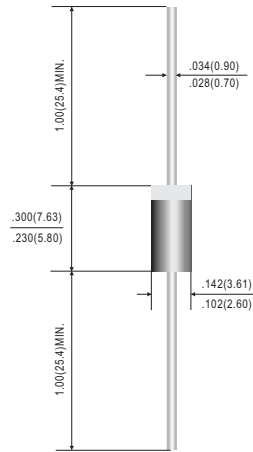
<9F&\$,

&'\$5AD<≡ <'9: : 7 9B7MF97H= 9F!) \$'tc '%\$\$\$ Jc`hg

8C1% PACKAGE

FEATURES

- * Low power loss, high efficiency
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High speed switching
- * High surge capability
- * High reliability
- * RoHS product for packing code suffix "G"
- Halogen free product for packing code suffix "H"



MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.4 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATINGS	SYMBOL	HER201	HER202	HER203	HER204	HER205	HER205P	HER206	HER207	HER208	UNITS	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	400	600	800	1000	Volts	
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	280	420	560	700	Volts	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current at TA= 50°C	I _O	2.0									Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	60									Amps	
Typical Junction Capacitance (Note 2)	C _J	30						20			pF	
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 150									°C	
Typical Thermal resistance	R _{θJA} / R _{θJC}	40 / 10										°C/W

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	HER201	HER202	HER203	HER204	HER205	HER205P	HER206	HER207	HER208	UNITS	
Maximum Instantaneous Forward Voltage at 2.0A DC	V _F	1.0			1.1		1.0		1.70		Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	I _R	5.0										uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at TL = 55°C		100										uAmps
Maximum Reverse Recovery Time (Note 1)	t _{rr}	50						75				nSec

- NOTES : 1. Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts



WILLAS



8\$5AD<: <:9: : 7 9B7MF97H: 9F!) \$'tc'%'\$\$'Jc`tg

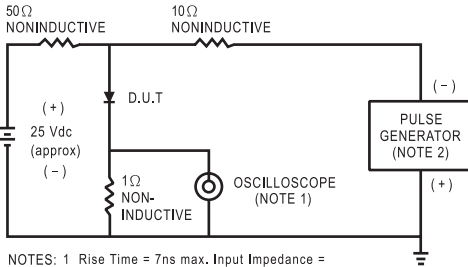
RATING AND CHARACTERISTIC CURVES 8C1% PACKAGE

<9F&\$%

'H<FI'

<9F&\$,

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

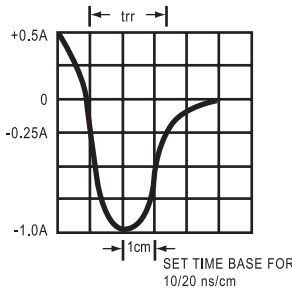


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

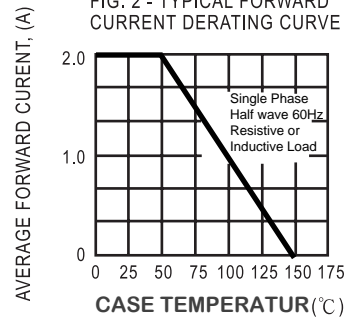


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

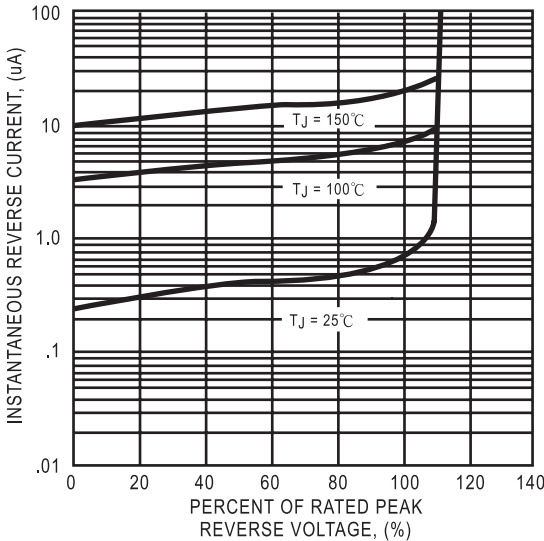


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

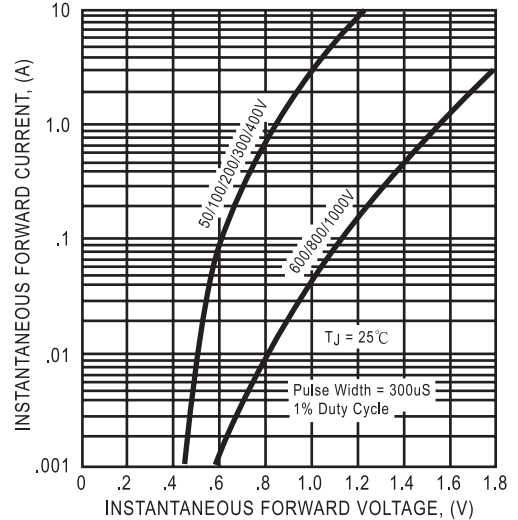


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

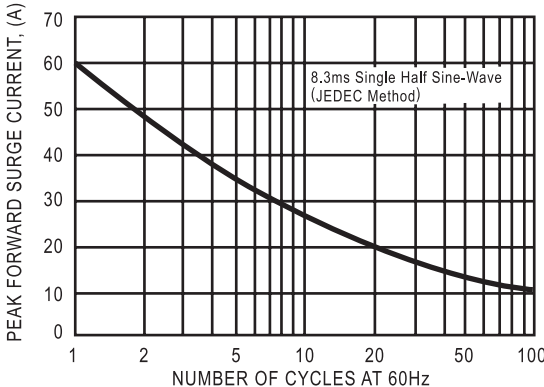


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

