

1.0Amp High Efficiency Rectifiers HER101 ~ HER108

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- High speed switching for high efficiency
- Open-Junction chip ,silastic passivated
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed
250°C/10 seconds at terminals

Mechanical Data

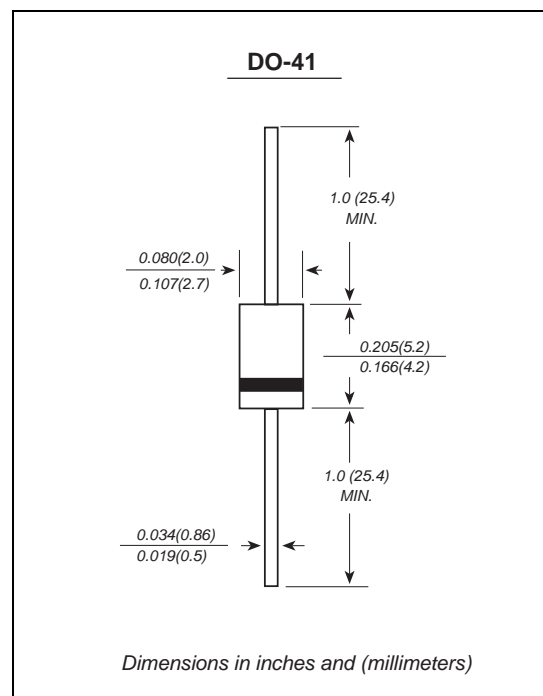
Case: JEDEC DO-41 molded plastic body

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight : 0.012 ounce, 0.34grams



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 current derate by 20%.

	SYMBOLS	HER101	HER102	HER103	HER104	HER105	HER106	HER107	HER108	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 at $T_L=55^\circ C$	$I_{(AV)}$	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 at 1.0A	V_F	1.0			1.3		1.7			Volts
Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=100^\circ C$	I_R	5.0 100.0								μA
Maximum reverse recovery time (Note 1)	T_{rr}	50					75			ns
Typical junction capacitance (Note 2)	C_J	20					15			pF
Typical thermal resistance (Note 3)	R_{qJA}	50								$^\circ C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +155								$^\circ C$

Note: 1.Reverse recovery time test condition: $I_F=0.5A$ $I_R=1.0A$ $I_{rr}=0.25A$

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3.Thermal resistance from junction to ambient at 0.375 "(9.5mm)lead length,P.C.B. mounted

Ratings And Characteristic Curves

HER101 THRU HER108

FIG. 1- FORWARD CURRENT DERATING CURVE

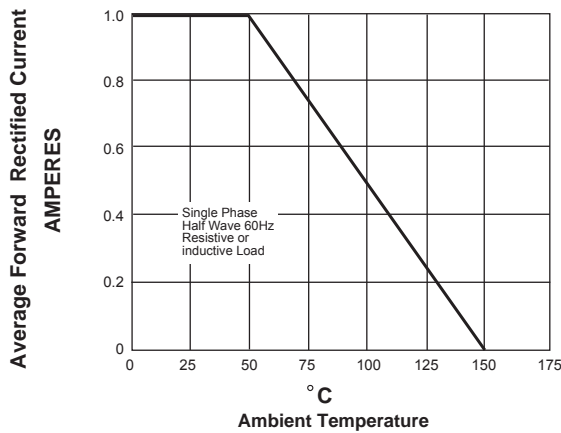


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

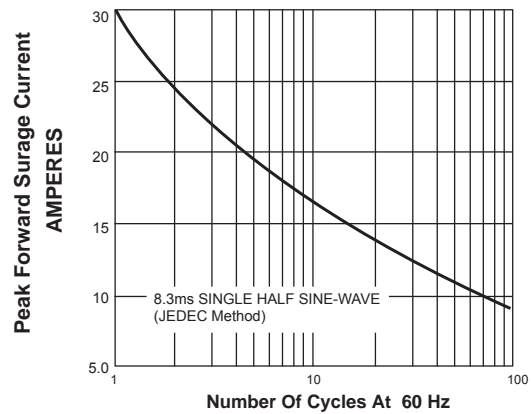


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

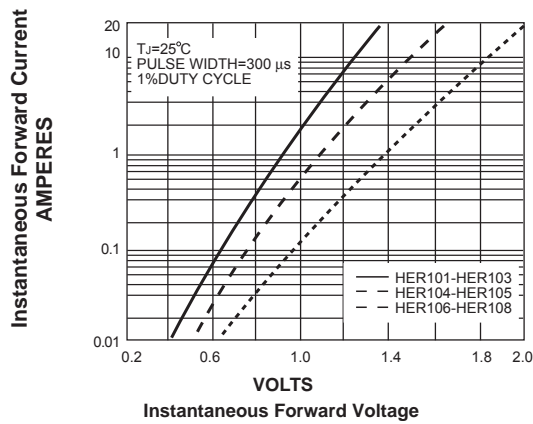


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

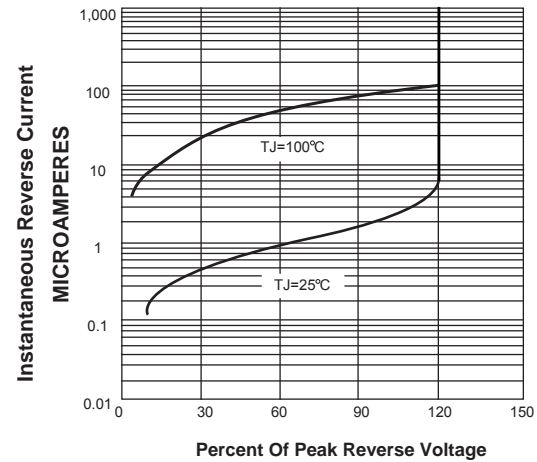


FIG. 5-TYPICAL JUNCTION CAPACITANCE

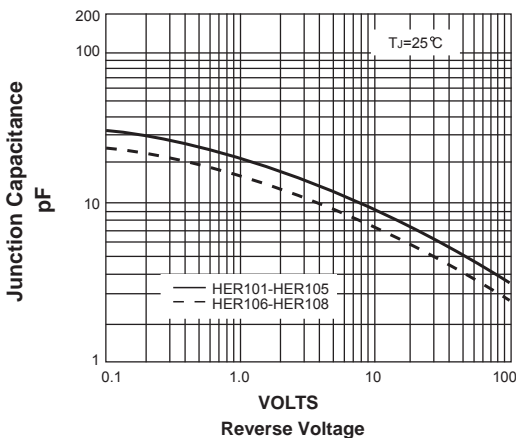


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

