



HER504G

DIODE

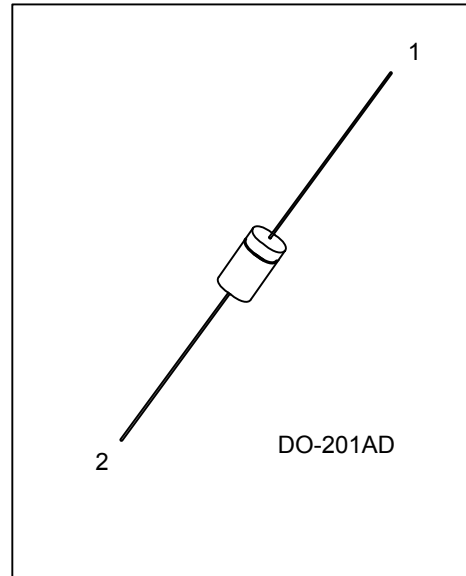
HIGH EFFICIENCY GLASS PASSIVATED RECTIFIERS

DESCRIPTION

The UTC **HER504G** is a high efficiency glass passivated rectifiers, it uses UTC's advanced technology to provide customers with high speed switching, high forward surge current and low reverse leakage, etc.

FEATURES

- * High speed switching for high efficiency
- * Low reverse leakage
- * High forward surge current capability



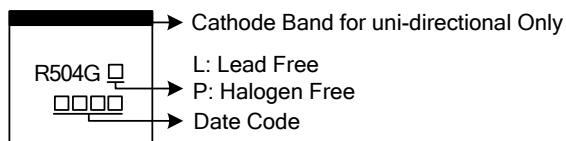
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
HER504GL-Z21D-B	HER504GP-Z21D-B	DO-201AD	K	A	Tape Box

Note: Pin Assignment: A: Anode K: Cathode

HER504GL-Z21D-B	(1)Packing Type (2)Package Type (3)Green Package	(1) B: Tape Box (2) Z21D: DO-201AD (3) L: Lead Free, P: Halogen Free and Lead Free
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MARKING



■ ABSOLUTE MAXIMUM RATINGS

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%.

PARAMETER	SYMBOL	RATINGS	UNIT
Working Peak Reverse Voltage	V_{RWM}	300	V
Repetitive Peak Reverse Voltage	V_{RRM}	300	V
RMS Voltage	V_{RMS}	210	V
DC Blocking Voltage	V_{DC}	300	V
Average Forward Rectified Current 0.375" (9.5mm) Lead Length at $T_A=50^{\circ}\text{C}$	$I_{(AV)}$	5.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200	A
Junction Temperature	T_J	-65~+150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-65~+150	$^{\circ}\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient (Note 3)	θ_{JA}	10	$^{\circ}\text{C}/\text{W}$

■ 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%.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage	V_F	$I_F=5.0\text{A}$			1.0	V
DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_A=25^{\circ}\text{C}$			10	μA
		$T_A=100^{\circ}\text{C}$			200	μA
Reverse Recovery Time (Note 1)	t_{rr}				50	ns
Junction Capacitance (Note 2)	C_J			75		pF

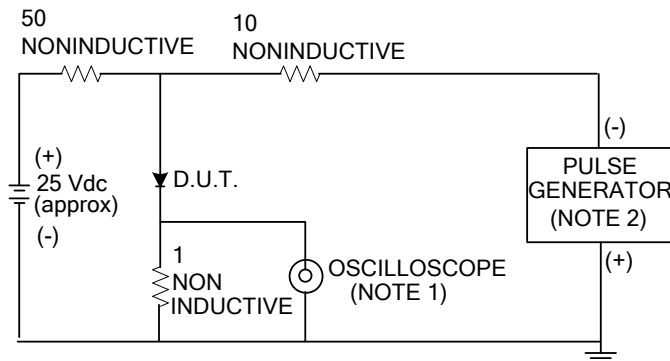
Notes: 1. Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$.

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

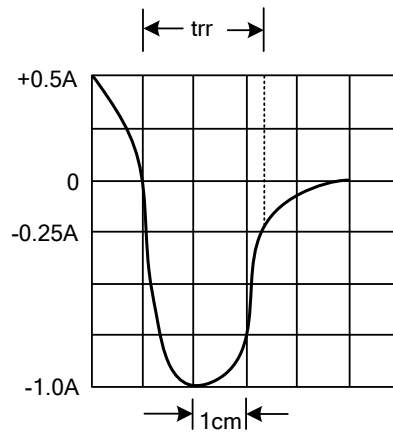
3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted.

TYPICAL CHARACTERISTICS

Test Circuit Diagram And Reverse Recovery Time Characteristics

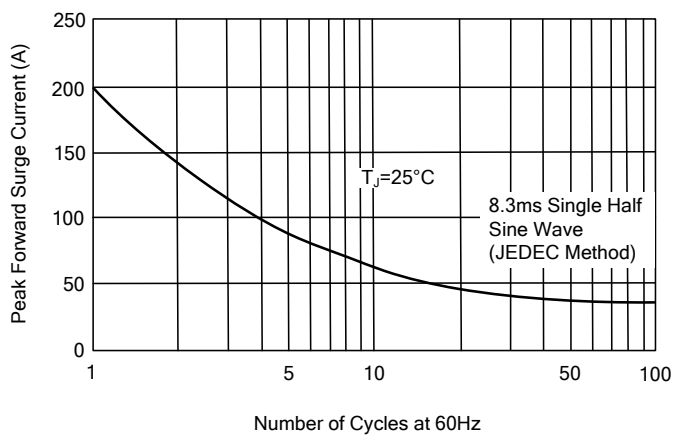


Notes: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pF
2. Rise Time=10ns max. Source Impedance= 50 ohms

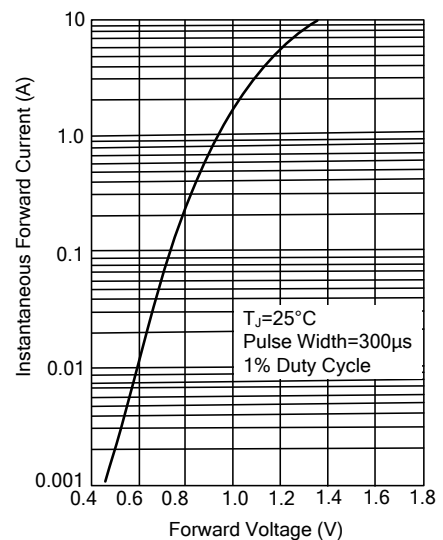


SET TIME BASE FOR
50/10ns/cm

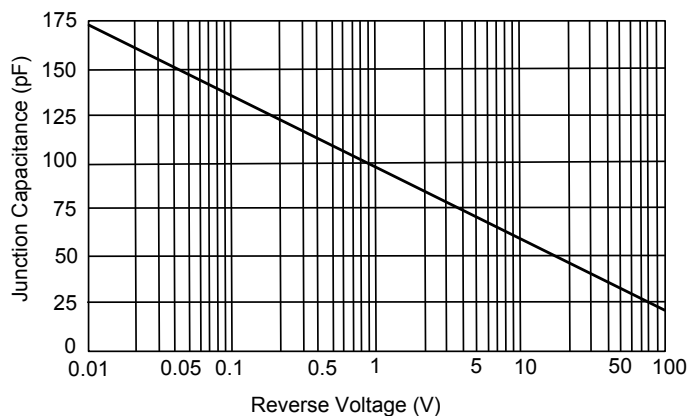
Maximum Non-repetitive Forward Surge Current



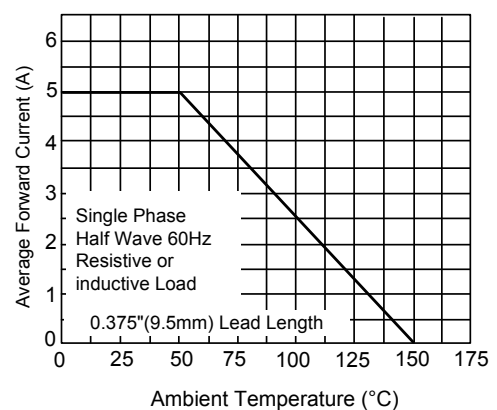
Typical Forward Characteristics



Typical Junction Capacitance



Typical Forward Current Derating Curve



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