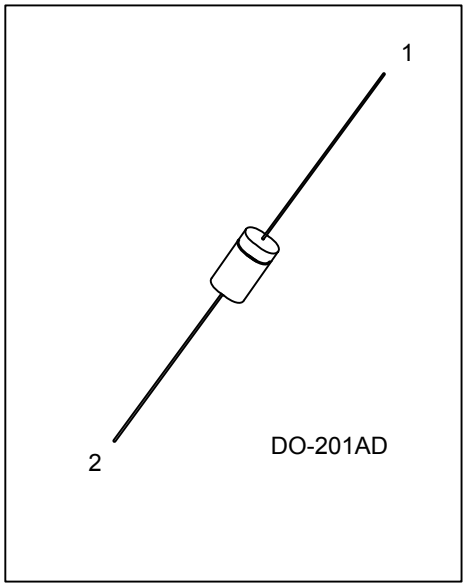
HER504G

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

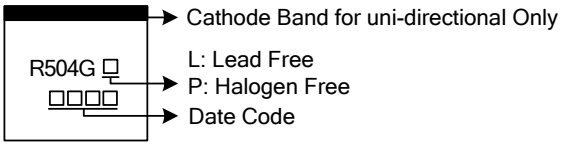
■ ORDERING INFORMATION

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

■ MARKING



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■ 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°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	°C
Storage Temperature	T_{STG}	-65~+150	°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	°C/W

■ ELECTRICAL CHARACTERISTICS

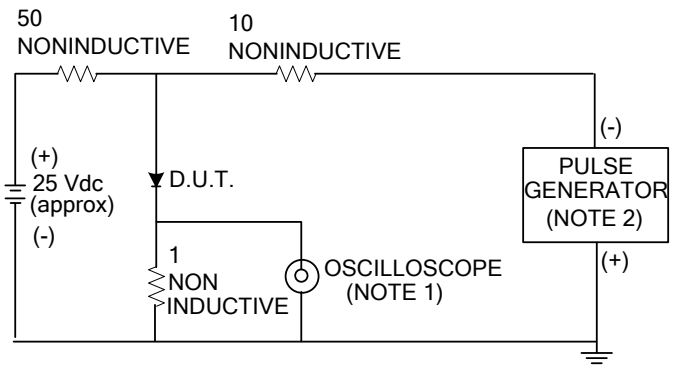
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

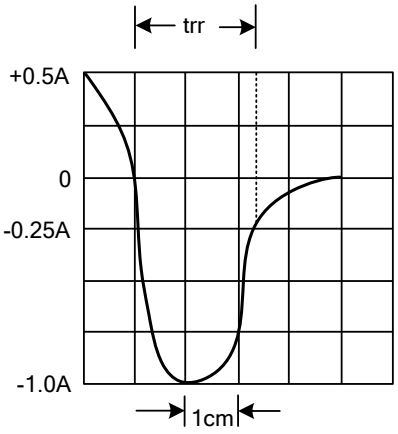
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage	V_F	I_F=5.0A			1.0	V
DC Reverse Current at Rated DC Blocking Voltage	I_R	T_A=25°C			10	μA
		T_A=100°C			200	μA
Reverse Recovery Time (Note 1)	t_{rr}				50	ns
Junction Capacitance (Note 2)	C_J			75		pF

Notes: 1. Reverse recovery condition I_F=0.5A, I_R=1.0A, Irr=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.

■ TYPICAL CHARACTERISTICS

Test Circuit Diagram And Reverse Recovery Time Characteristics

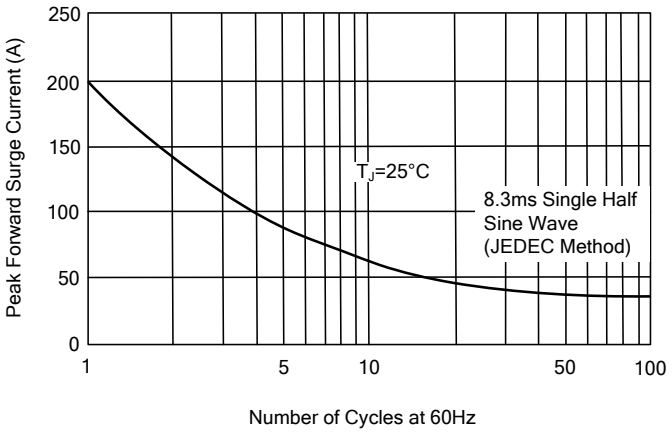




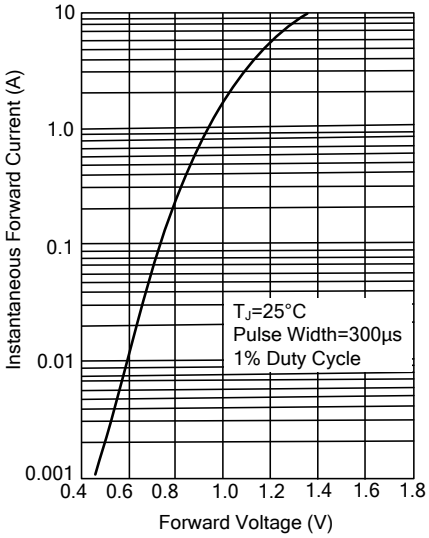
Notes: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pF
2. Rise Time=10ns max. Source Impedance= 50 ohms

SET TIME BASE FOR
50/10ns/cm

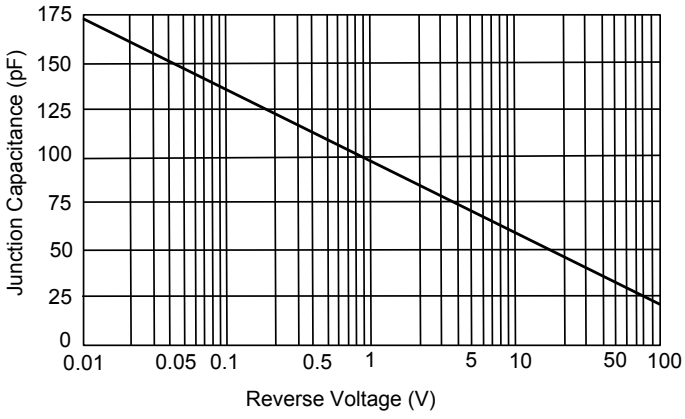
Maximum Non-repetitive Forward Surge Current



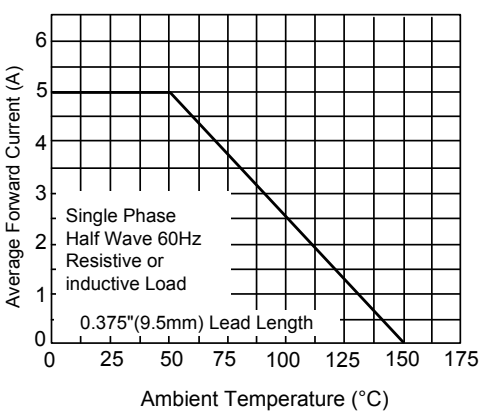
Typical Forward Characteristics



Typical Junction Capacitance



Typical Forward Current Derating Curve



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