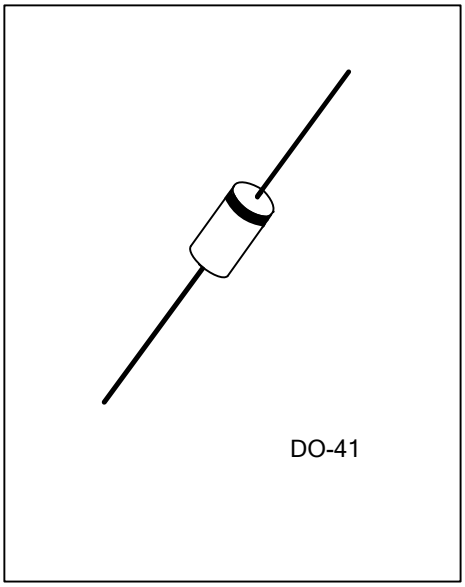
1N4007G

DIODE

GLASS PASSIVATED SILICON RECTIFIER



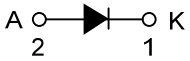
■ DESCRIPTION

The UTC **1N4007G** is a glass passivated silicon rectifier, it uses UTC's advanced technology to provide customers with high forward surge current and low reverse leakage, etc.

■ FEATURES

* Low reverse leakage
* High forward surge current capability

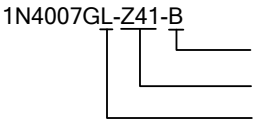
■ SYMBOL



■ ORDERING INFORMATION

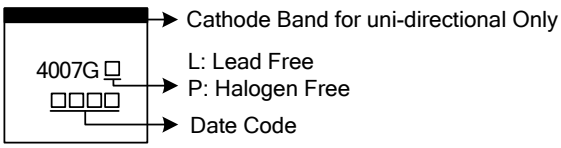
Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
1N4007GL-Z41-B	1N4007GP-Z41-B	DO-41	K	A	Tape Box
1N4007GL-Z41-R	1N4007GP-Z41-R	DO-41	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode



(1) B: Tape Box, R: Tape Reel
(2) Z41: DO-41
(3) L: Lead Free, P: Halogen Free

■ 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}	1000	V
Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Reverse Voltage	V_{RMS}	700	V
DC Blocking Voltage	V_R	1000	V
Average Rectified Output Current (T_A=105°C)	I_O	1.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	30	A
Junction Temperature	T_J	-55~+150	°C
Storage Temperature	T_{STG}	-55~+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 2)	θ_{JA}	50	°C/W

■ ELECTRICAL CHARACTERISTICS

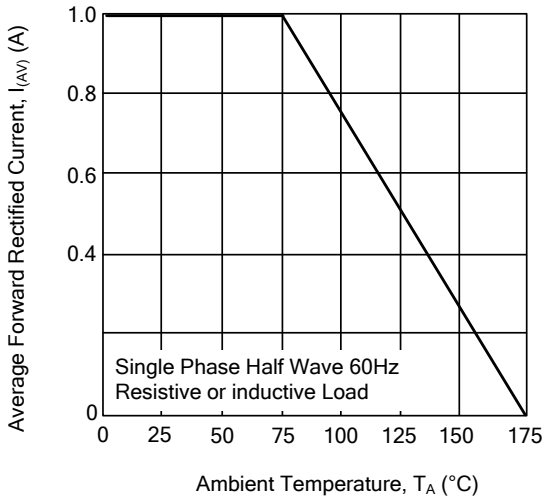
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage	V_{FM}	I_F=1.0A			1.1	V
DC Reverse Current at Rated DC Blocking Voltage	I_{RM}	T_A=25°C			5.0	μA
		T_A=100°C			50.0	μA
Junction Capacitance (Note 1)	C_J			15.0		pF

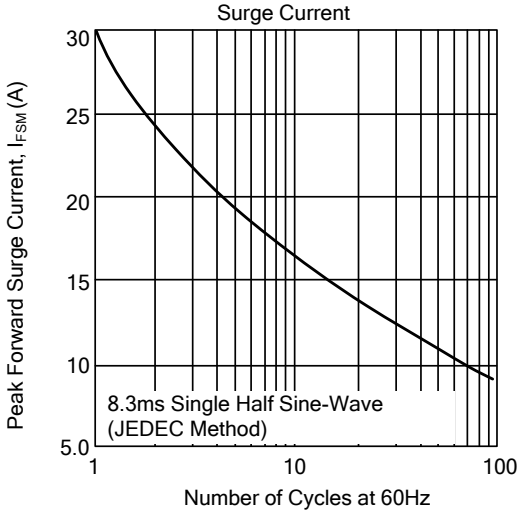
Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance from junction to ambient at 0.375” (9.5mm) lead length, P.C.B. mounted.

■ TYPICAL CHARACTERISTICS

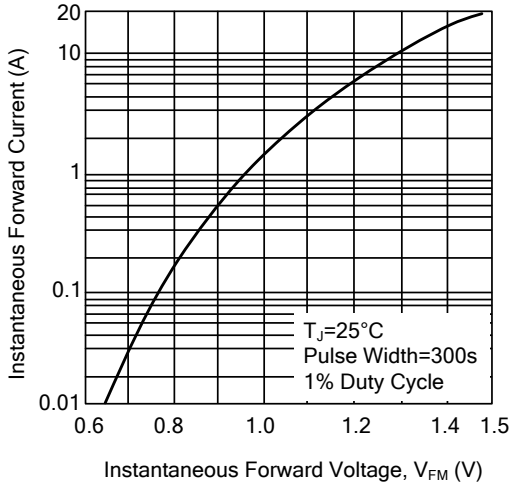
Forward Current Derating Curve



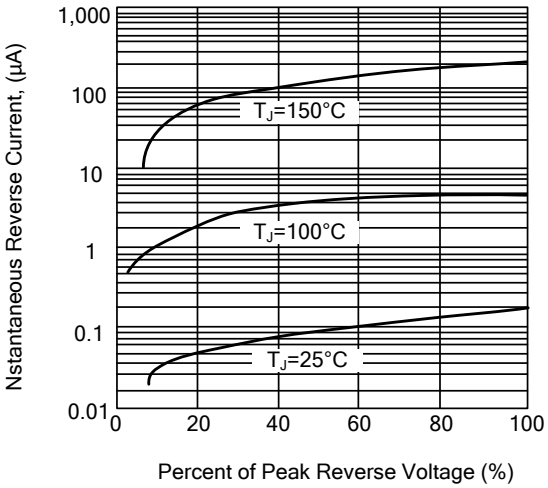
Maximum Non-repetitive Peak Forward Surge Current



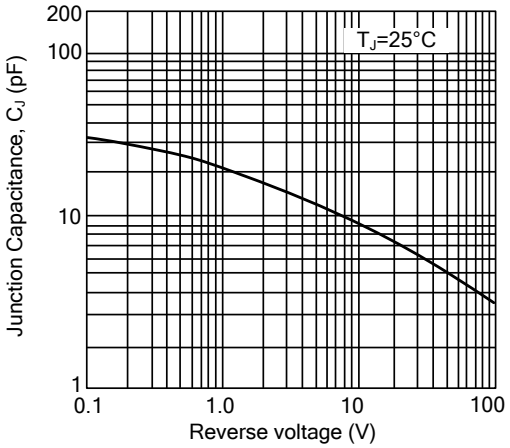
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



Typical Transient Thermal Impedance