

UNISONIC TECHNOLOGIES CO., LTD

SF18G **DIODE**

GLASS PASSIVATED SUPER FAST RECOVERY RECTIFIER

DESCRIPTION

The UTC SF18G is a glass passivated super fast rectifier, it uses UTC's advanced technology to provide customers with high surge current and low forward voltage drop, etc.

FEATURES

- * Low forward voltage drop
- * High surge current capability
- * High current capability
- * High reliability

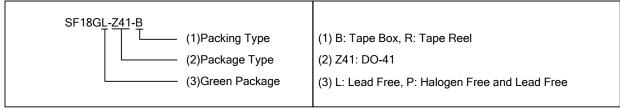
SYMBOL



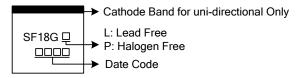
ORDERING INFORMATION

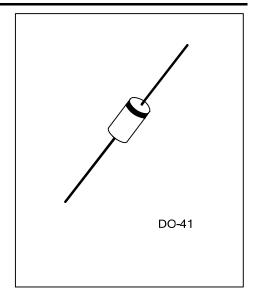
Ordering Number		Dookogo	Pin Assignment		Dooking	
Lead Free	Halogen Free	Package	1	2	Packing	
SF18GL-Z41-B	SF18GP-Z41-B	DO-41	K	Α	Tape Box	
SF18GL-Z41-R	SF18GP-Z41-R	DO-41	K	Α	Tape Reel	

Note: Pin Assignment: A: Anode K: Cathode



MARKING





www.unisonic.com.tw 1 of 3 SF18G DIODE

■ 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}	600	V
Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS Reverse Voltage	V_{RMS}	420	V
DC Blocking Voltage	V_R	600	V
Average Rectified Output Current (T _A =55°C)	lo	1.0	Α
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	30	Α
Junction Temperature	TJ	-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			1.7	٧
DC Reverse Current at Rated DC Blocking		T _A =25°C			5.0	μΑ
Voltage	I _{RM}	T _A =100°C			100	μΑ
Reverse Recovery Time	t _{rr}	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A			35	ns
Junction Capacitance (Note 1)	CJ			25		pF

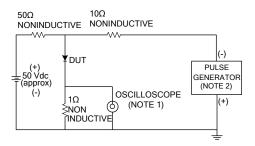
Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

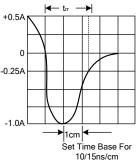
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted.

SF18G DIODE

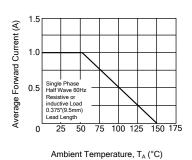
■ TYPICAL CHARACTERISTICS

Test Circuit Diagram And Reverse Recovery Time Characteristics



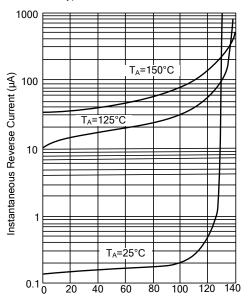






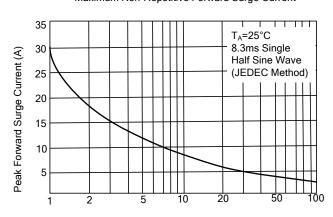
Notes: 1 Rise Time=7ns max. Input Impedance=1 megohm 22pF 2 Rise Time=10ns max. Source Impedance=50 ohms

Typical Reverse Characteristics



Percent of Rated Peak Reverse Voltage (%)

Maximum Non-Repetitive Forward Surge Current



Number of Cycles At 60Hz

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.