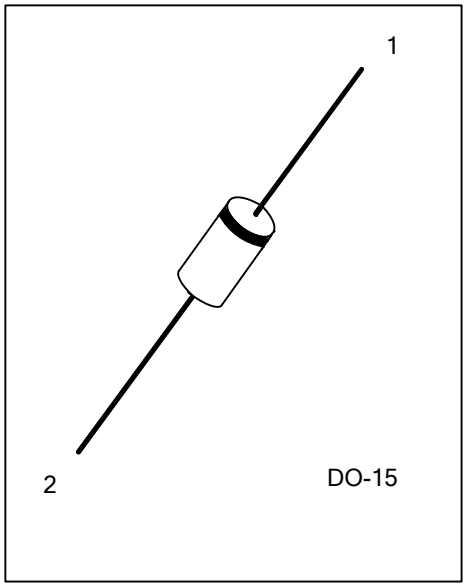
SF28G

DIODE

GLASS PASSIVATED SUPER FAST RECOVERY RECTIFIER



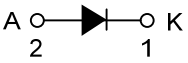
■ DESCRIPTION

The UTC **SF28G** 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

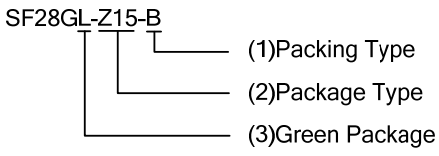
■ SYMBOL



■ ORDERING INFORMATION

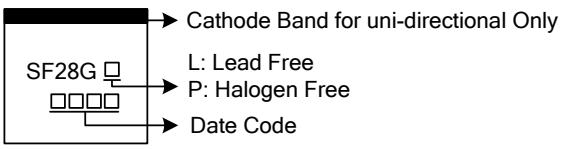
Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
SF28GL-Z15-B	SF28GP-Z15-B	DO-15	K	A	Tape Box

Note: Pin Assignment: A: Anode K: Cathode



(1) B: Tape Box
(2) Z15: DO-15
(3) L: Lead Free, P: Halogen Free and Lead 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}	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)	I_O	2.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	50	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

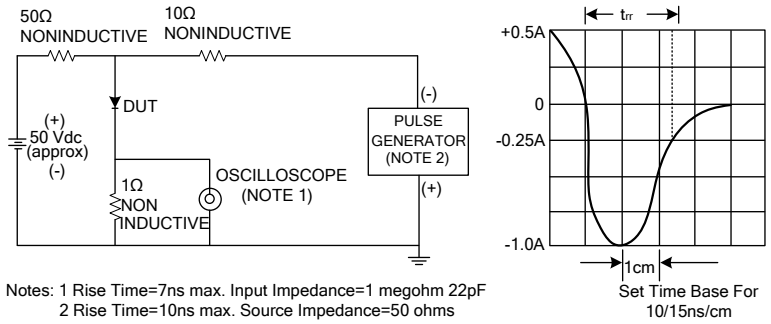
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage	V_{FM}	I_F=2.0A			1.7	V
DC Reverse Current at Rated DC Blocking Voltage	I_{RM}	T_A=25°C			5.0	μA
		T_A=100°C			50	μA
Reverse Recovery Time	t_{rr}	I_F=0.5A, I_R=1.0A, I_{rr}=0.25A			35	ns
Junction Capacitance (Note 1)	C_J			30		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

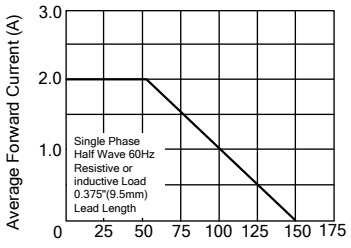
Test Circuit Diagram And Reverse Recovery Time Characteristics



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

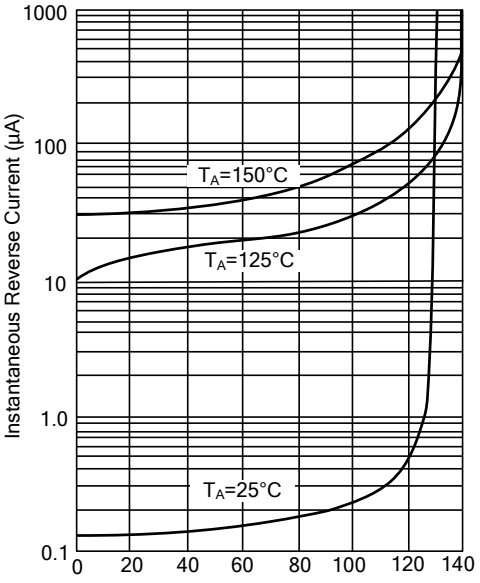
Set Time Base For
10/15ns/cm

Typical Forward Current Derating Curve



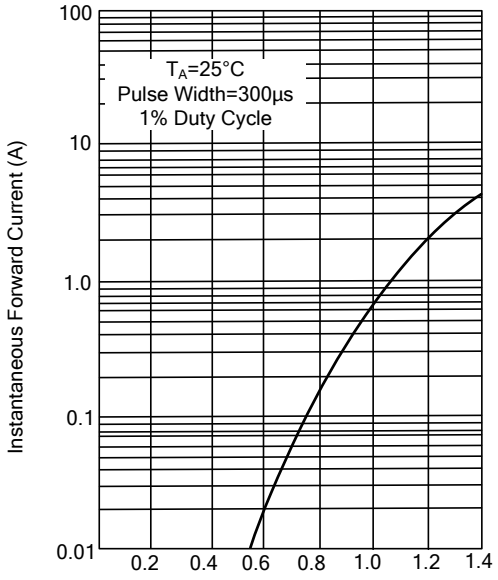
Ambient Temperature, T_A (°C)

Typical Reverse Characteristics



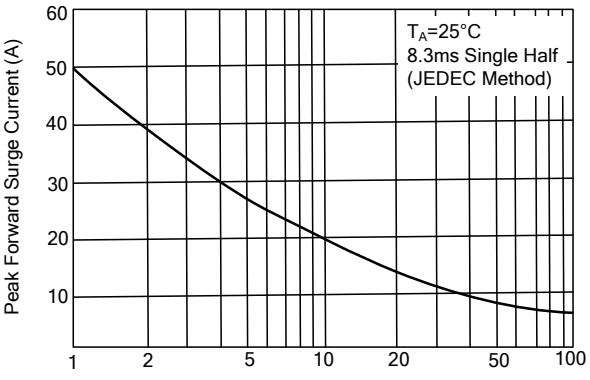
Percent Of Rated Peak Reverse Voltage (%)

Typical Forward Characteristics



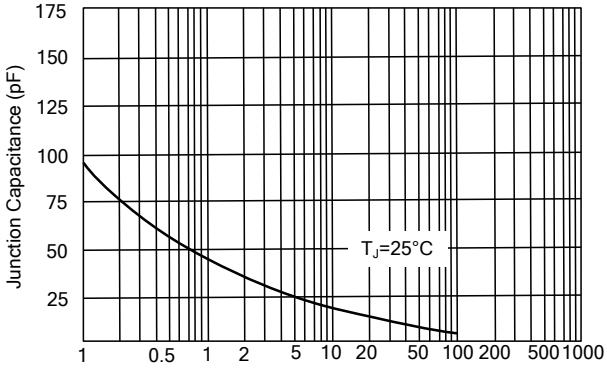
Forward Voltage (V)

Maximum Non-Repetitive Forward Surge Current



Number Of Cycles At 60Hz

Typical Junction Capacitance



Reverse Voltage (V)