

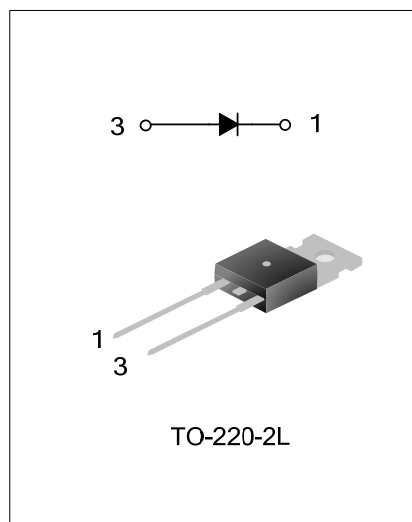
10A, 400V SUPER-FAST RECOVERY RECTIFIER

GENERAL DESCRIPTION

SFR10S40T2 is a Super-Fast Recovery Diode, fabricated in advanced silicon planar epitaxial technology. The process parameter and the device structure are fine tuned with optimized performance of forward voltage drop and reverse recovery time.

Accuracy epitaxial dope control, advanced planar junction terminal structure and the platinum doped life control, guarantee the best overall performance, ruggedness and reliability characteristics.

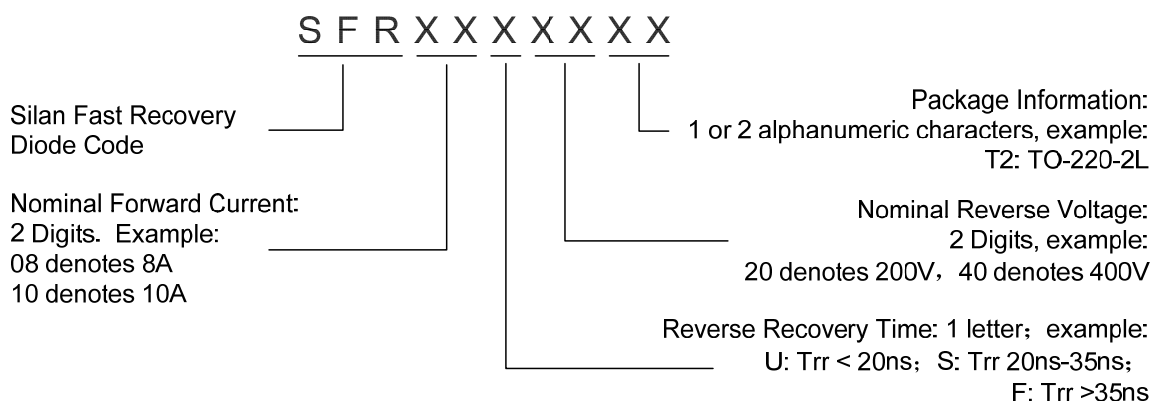
SFR10S40T2 is intended for use in the output rectification stage of SMPS, UPS, DC-DC converters as well as free-wheeling diode in low voltage inverters and chopper motor drivers.



FEATURES

- * Ultrafast 35 Nanosecond Recovery Time
- * Low Forward Voltage Drop
- * Low Leakage Current
- * 150 °C Operating Junction Temperature

NOMENCLATURE



ORDERING SPECIFICATIONS

Part No.	Package	Marking	Material	Packing
SFR10S40T2	TO-220-2L	SFR10S40T2	Pb free	Tube

ABSOLUTE MAXIMUM RATINGS

Characteristics	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	VRRM	400	V
Average Rectified Forward Current	IF(AV)	10.0	A
Non Repetitive Peak Surge Current	IFSM	150	A
Operation Junction Temperature	TJ	-55~+150	°C
Storage Temperature	Tstg	-55~+150	°C

THERMAL CHARACTERISTICS

Characteristics	Symbol	Rating	Unit
Thermal Resistance, Junction-to-Case	RθJC	3.0	°C/W

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min.	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage (Note 1) (IF=10.0 Amps, Tc=25°C)	VF	--	--	1.3	V
Maximum Instantaneous Reverse Current(Note 1) (Rated dc Voltage, Tc=25°C)	IR	--	--	10.0	μA
Maximum Reverse Recovery Time (IF=0.5 Amp, IR=1.0Amp, IREC=0.25Amp)	trr	--	--	35	ns

TYPICAL CHARACTERISTICS

Figure 1. Instantaneous reverse leakage current vs. Percent of rated peak reverse voltage

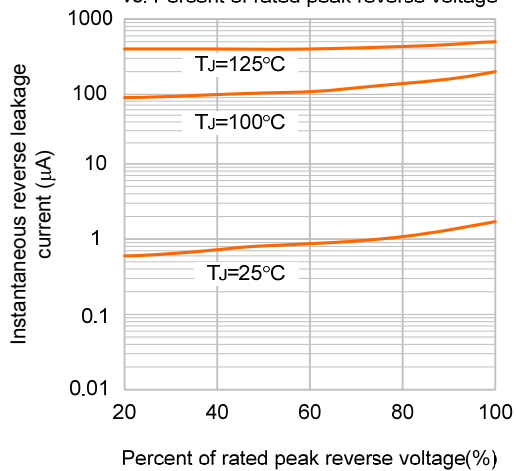


Figure 2. Junction capacitance vs. Reverse voltage

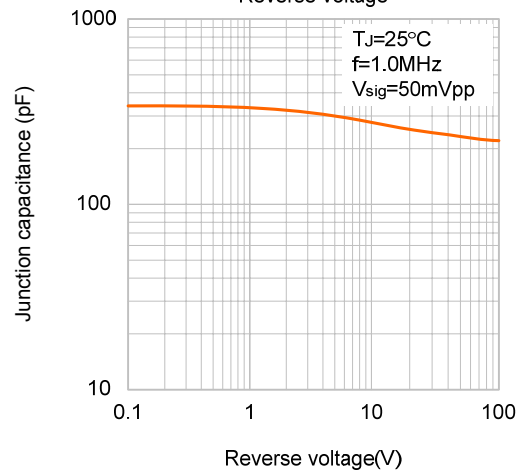
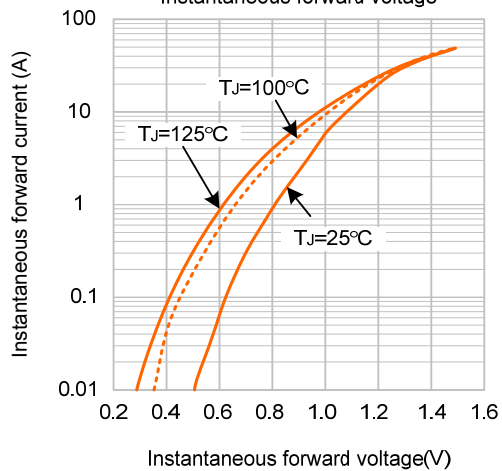


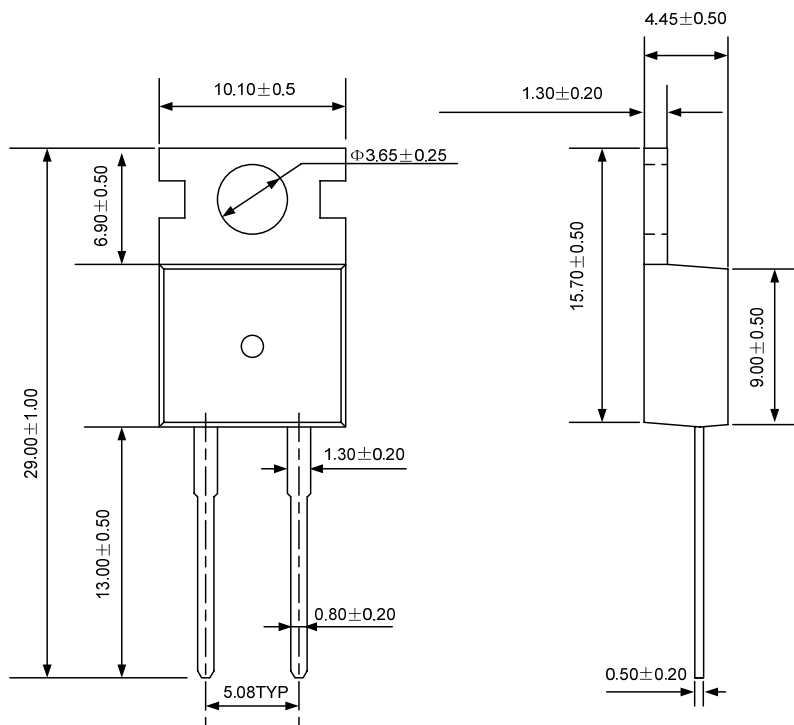
Figure 3. Instantaneous forward current vs. Instantaneous forward voltage



PACKAGE OUTLINE

TO-220-2L

UNIT: mm



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- Silan will supply the best possible product for customers!

ATTACHMENT**Revision History**

Date	REV	Description	Page
2011.05.12	1.0	Initial release	