

## 10A, 60V SCHOTTKY RECTIFIER

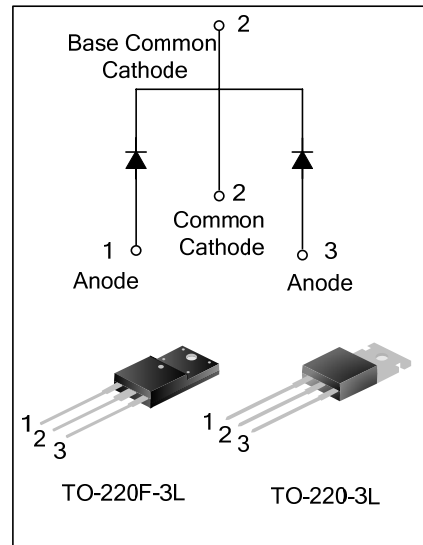
### DESCRIPTION

SBD10C60T/F is schottky rectifier fabricated in silicon epitaxial planar technology, Guard ring construction for over voltage protection and enhanced long term reliability.

Typical applications are in switching power supplies, converter, free-wheeling diodes, and reverse battery protection.

### FEATURES

- \* Guard ring for Stress Protection
- \* High Surge Capacity
- \* Low power loss , high efficiency
- \* Low Forward Voltage Drop
- \* 125°C Operating Junction Temperature



### ORDERING SPECIFICATIONS

Part No.	Package	Marking	Material	Packing
SBD10C60T	TO-220-3L	SBD10C60T	Pb free	Tube
SBD10C60F	TO-220F-3L	SBD10C60F	Pb free	Tube

### ABSOLUTE MAXIMUM RATINGS (T<sub>C</sub>=25°C unless otherwise noted)

Characteristics	Symbol	Ratings	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	60	V
Average Forward Rectified Current	I <sub>FAV</sub>	10	A
Peak Forward Surge Current@8.3ms	I <sub>FSM</sub>	120	A
Operation Junction Temperature	T <sub>J</sub>	125	°C
Storage Temperature Range	T <sub>STG</sub>	-40~125	°C

### THERMAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Thermal Resistance, Junction-to-Case	R <sub>θJC</sub>	2.0	°C/W

**ELECTRICAL CHARACTERISTICS (Per Leg)**

Characteristics	Symbol	Test Condition	Min.	Max.	Unit
Forward Voltage	$V_F$	$I_F=5\text{ A}; T_J=25^\circ\text{C}$	--	0.71	V
	$V_F$	$I_F=5\text{ A}; T_J=125^\circ\text{C}$	--	0.61	V
	$V_F$	$I_F=10\text{ A}; T_J=25^\circ\text{C}$	--	0.85	V
	$V_F$	$I_F=10\text{ A}; T_J=125^\circ\text{C}$	--	0.71	V
Reverse Current	$I_R$	$V_R=60\text{V}; T_J=25^\circ\text{C}$	--	100	$\mu\text{A}$
	$I_R$	$V_R=60\text{V}; T_J=125^\circ\text{C}$	--	15	mA

**CHARACTERISTIC CURVES**

Figure 1. Typical forward voltage

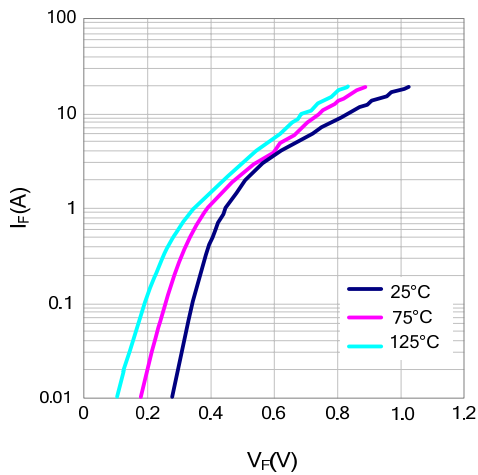


Figure 2. Typical reverse current

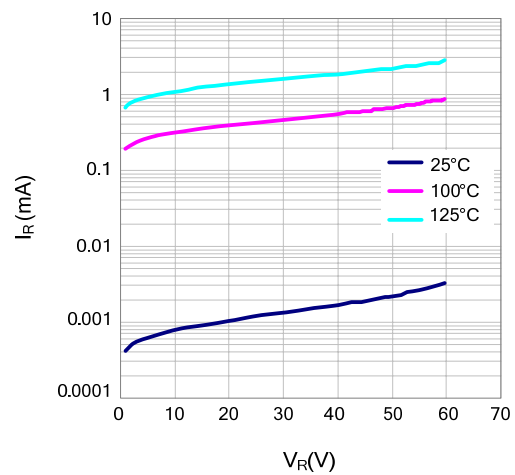
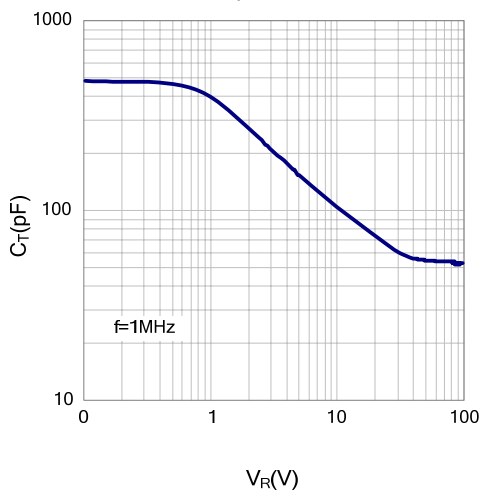


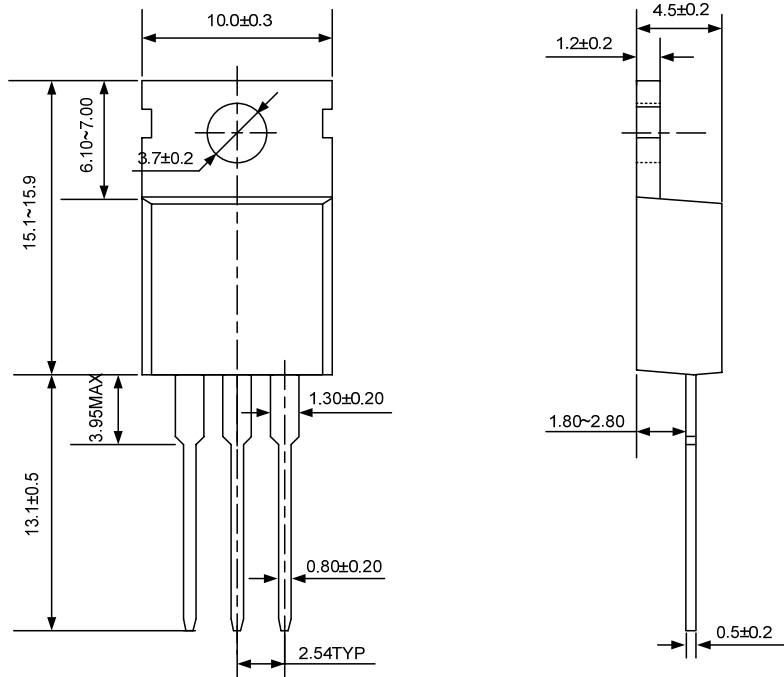
Figure 3. Typical capacitance



**PACKAGE OUTLINE**

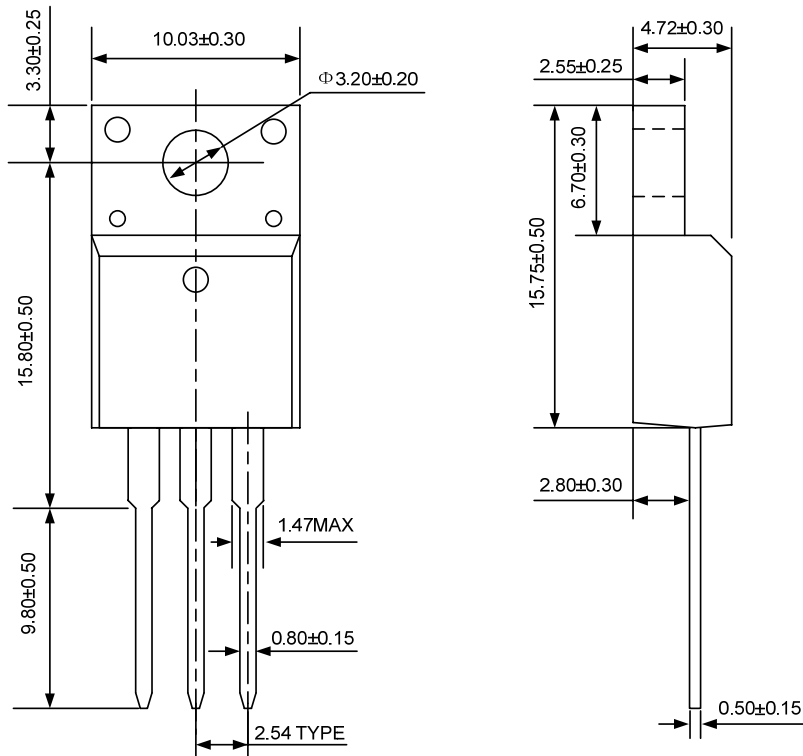
**TO-220-3L**

**UNIT: mm**



**TO-220F-3L**

**UNIT: mm**



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- Silan will supply the best possible product for customers!

**ATTACHMENT****Revision History**

Date	REV	Description	Page
2011.06.28	1.0	Initial release	