

## 10A, 60V SCHOTTKY RECTIFIER

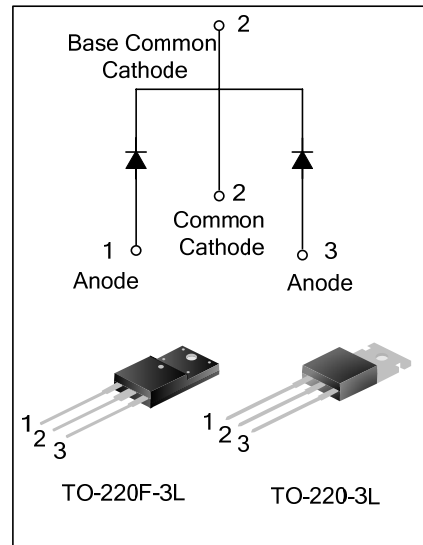
### DESCRIPTION

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 ( $T_C=25^\circ\text{C}$ unless otherwise noted)

Characteristics	Symbol	Ratings	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	60	V
Average Forward Rectified Current	$I_{FAV}$	10	A
Peak Forward Surge Current@8.3ms	$I_{FSM}$	120	A
Operation Junction Temperature	$T_J$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-40~125	$^\circ\text{C}$

### THERMAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	2.0	$^\circ\text{C/W}$

## 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

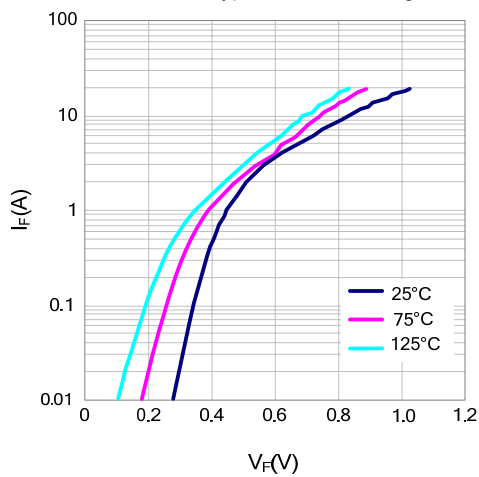


Figure 2. Typical reverse current

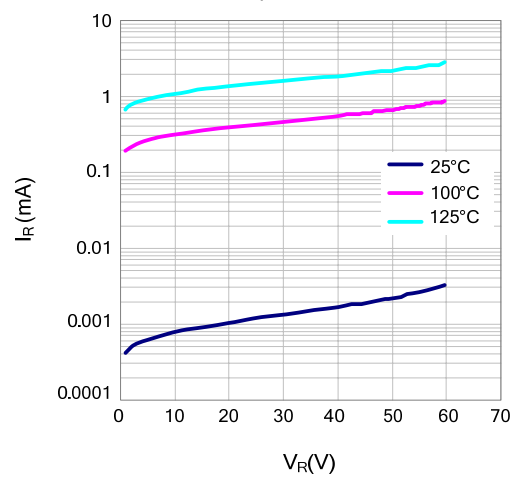
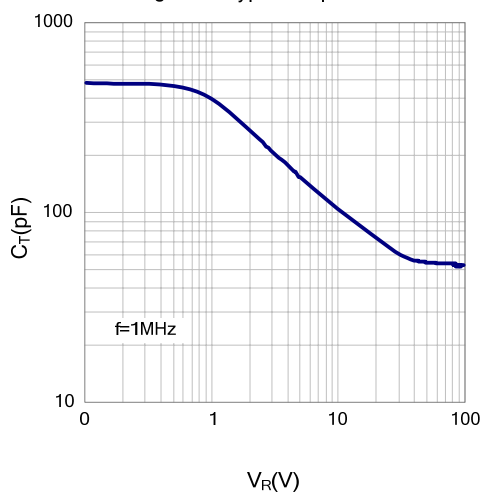


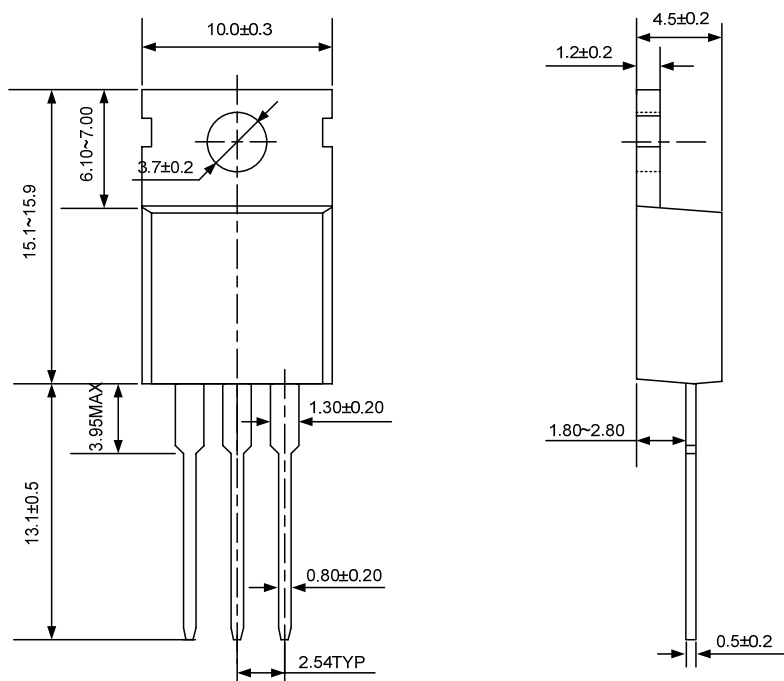
Figure 3. Typical capacitance



**PACKAGE OUTLINE**

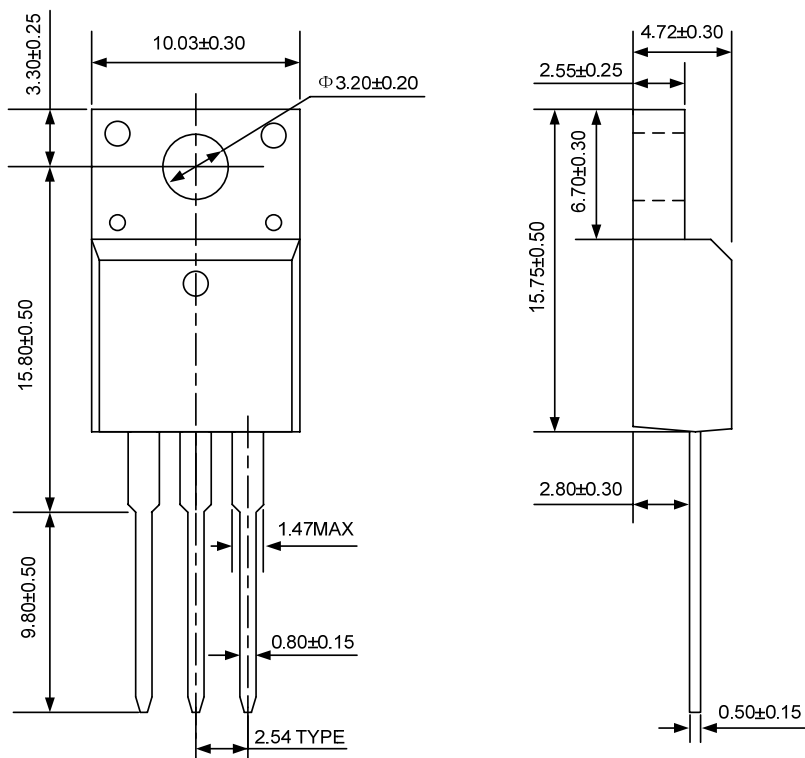
**TO-220-3L**

**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	