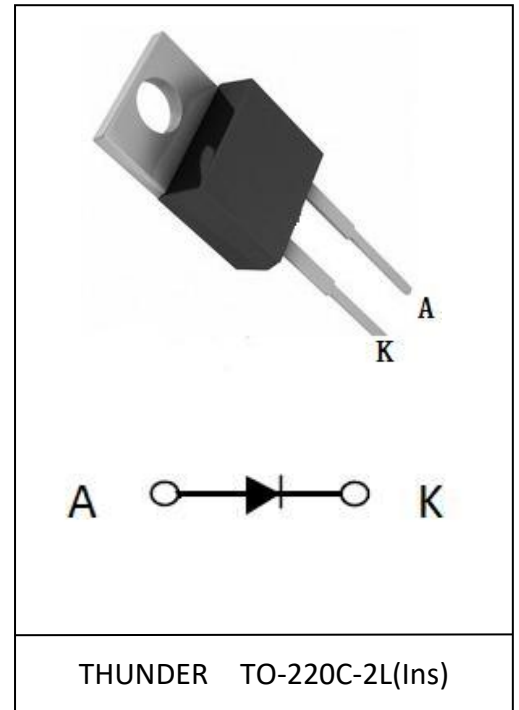


## Features

- 650-Volt Schottky Rectifier
- Zero Reverse Recovery
- Zero Forward Recovery
- Positive Temperature Coefficient on  $V_F$
- Temperature-Independent Switching Behavior

$V_{RRM}$	650 V
$I_{F(AVG)}$	20 A
$Q_C$	41 nC



## Maximum Ratings

Symbol	Parameter	Value	Unit	Test Conditions	Note
$V_{RRM}$	Repetitive Peak Reverse Voltage	650	V		
$V_{DC}$	DC Blocking Voltage	650	V		
$I_{F(AVG)}$	Average Forward Current	20	A	$T_C \leq 155^\circ\text{C}$	1
$I_{FSM}$	Non-Repetitive Forward Surge Current	160	A	$T_C = 25^\circ\text{C}, t_p = 8.3\text{ms}$ , Half Sine Wave	1
$T_J$	Operating Junction Temperature	-55 to 175	$^\circ\text{C}$		

1. Assumes Thermal Resistance of  $0.8^\circ\text{C}/\text{W}$  or less

## Electrical Characteristics

Symbol	Parameter	Typ.	Max.	Unit	Test Conditions	Note
V <sub>F</sub>	Forward Voltage	1.3	1.5	V	I <sub>F</sub> =20A, T <sub>J</sub> =25°C	Fig.1
		1.4	1.7		I <sub>F</sub> =20A, T <sub>J</sub> =175°C	
I <sub>R</sub>	Reverse Current	10	100	μA	V <sub>R</sub> =650V, T <sub>J</sub> =25°C	Fig.2
		40	400		V <sub>R</sub> =650V, T <sub>J</sub> =175°C	
C	Total Capacitance	1210	/	pF	V <sub>R</sub> =0V, T <sub>J</sub> =25°C, f=1MHz	Fig.3
		124			V <sub>R</sub> =200V, T <sub>J</sub> =25°C, f=1MHz	
		90			V <sub>R</sub> =400V, T <sub>J</sub> =25°C, f=1MHz	
Q <sub>c</sub>	Total Capacitive Charge	41	/	nC	V <sub>R</sub> =400V, I <sub>F</sub> =20A di/dt=200A/μs, T <sub>J</sub> =25°C	Fig.4

## Thermal Characteristics

Symbol	Parameter	Typ.	Unit
R <sub>th(j-c)</sub>	Thermal Resistance , Junction to Case	2.2	°C/W

**Electrical Characteristic Curves**

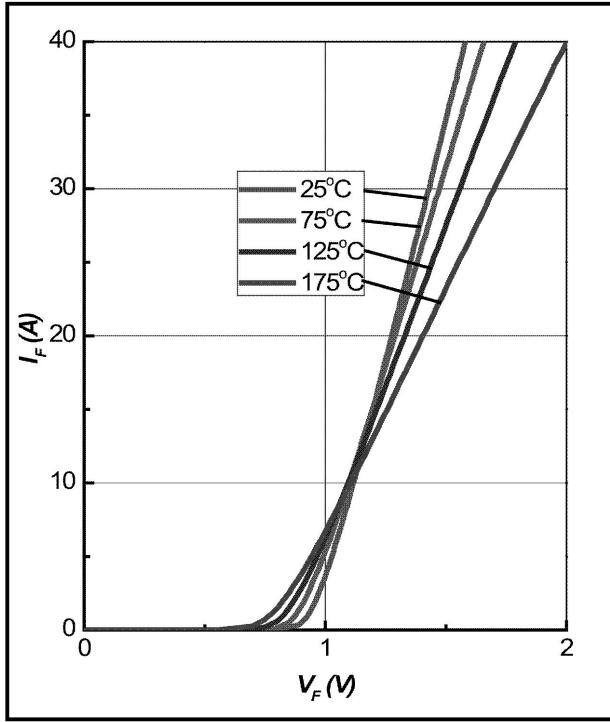


Figure 1. Forward Characteristics

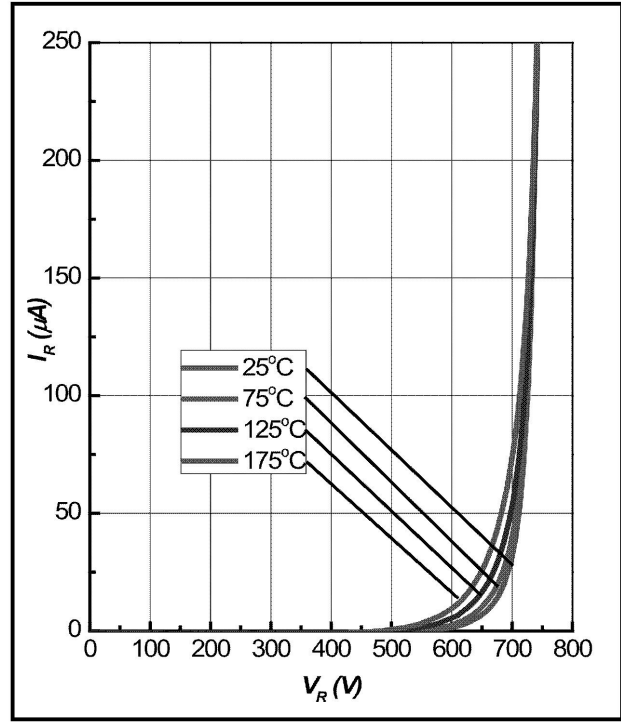


Figure 2. Reverse Characteristics

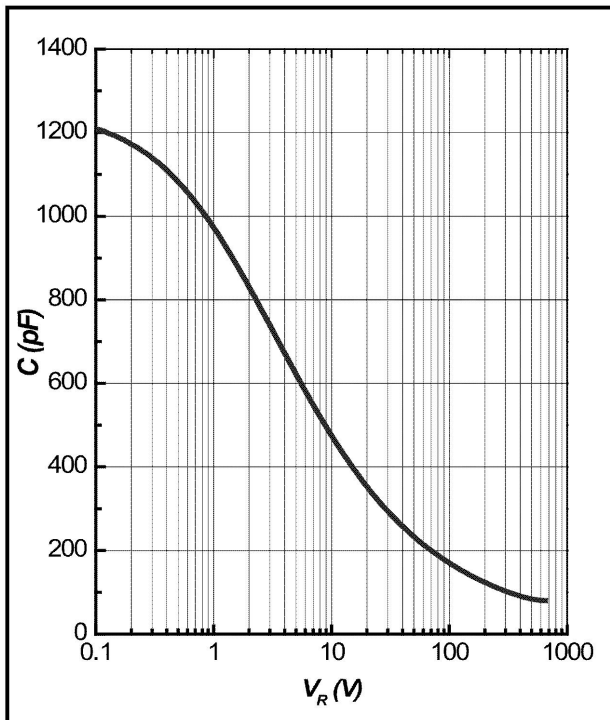


Figure 3. Total Capacitance vs. Reverse Voltage

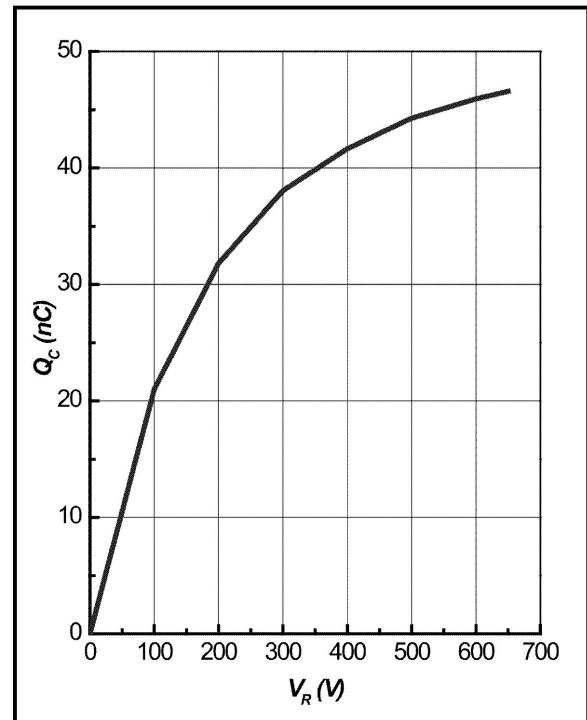
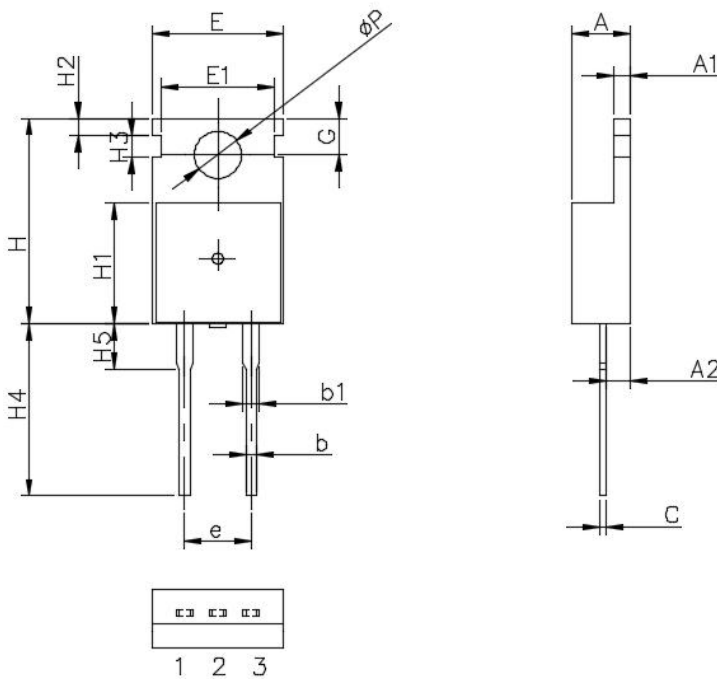


Figure 4. Total Capacitive Charge vs. Reverse Voltage

**Package Information**
**TO-220C-2L Ins PACKAGE**
**基本尺寸**


Symbol	单位 mm		
	Min	Nom	Max
A	4.30	4.5	4.70
A1	1.20	1.30	1.40
A2	2.20	2.4	2.60
b	0.60	0.8	1.00
b1	1.20	1.30	1.40
c	0.40	0.5	0.60
e	4.98	5.08	5.18
E	9.80	10.0	10.2
E1	8.50	8.70	8.90
H	15.5	15.7	15.9
H1	9.00	9.2	9.40
H2	1.10	1.34	1.50
H3	1.50	1.7	1.90
H4	12.9	13.3	13.7
H5	2.80	3.0	3.20
G	2.60	2.8	3.00
ΦP	3.40	3.6	3.80

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