



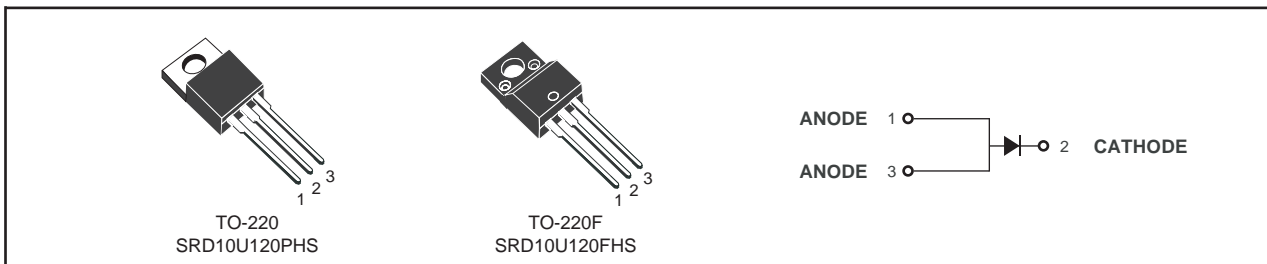
## Trench Barrier Schottky Rectifier

### PRODUCT SUMMARY

VRRM	IO	VF(MAX) @ 25°C	IR(MAX) @ 25°C
120V	10A	0.84V	0.01mA

### FEATURES

- Low forward voltage drop
- High forward surge capability
- Excellent High Temperature Stability



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

Symbol	Parameter	Value	Unit
V <sub>RRM</sub>	Peak Repetitive Reverse Voltage	120	V
V <sub>RWM</sub>	Working Peak Reverse Voltage	120	V
V <sub>RM</sub>	DC Blocking Voltage	120	V
V <sub>R(RMS)</sub>	RMS Reverse Voltage	84	V
I <sub>O</sub>	Average Rectified Output Current	10	A
I <sub>FSM</sub>	Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	150	A

### THERMAL CHARACTERISTICS

Symbol	Parameter	Value	Unit
R <sub>θJC</sub>	Thermal Resistance, Junction-to-Ambient	TO-220	2 °C/W
		TO-220F	6 °C/W
T <sub>J</sub>	Operating Temperature Range	-55 to 150	°C
T <sub>STG</sub>	Storage Temperature Range	-55 to 175	°C

### ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V <sub>F</sub>	Forward Voltage Drop	I <sub>F</sub> = 10A, T <sub>J</sub> = 25°C		0.79	0.84	V
		I <sub>F</sub> = 10A, T <sub>J</sub> = 125°C		0.65	0.70	V
I <sub>R</sub>	Leakage Current	V <sub>R</sub> = 120V, T <sub>J</sub> = 25°C		2.4	10	uA
		V <sub>R</sub> = 120V, T <sub>J</sub> = 125°C			8	mA

# SRD10U120PHS

# SRD10U120FHS

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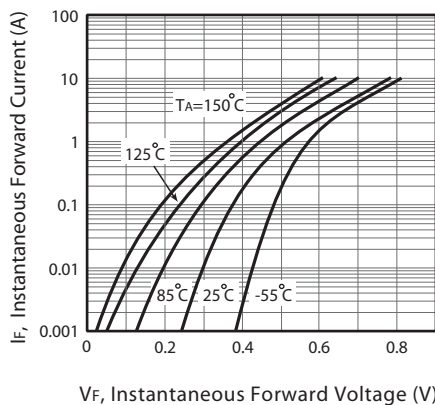


Figure 1. Typical Forward Characteristics

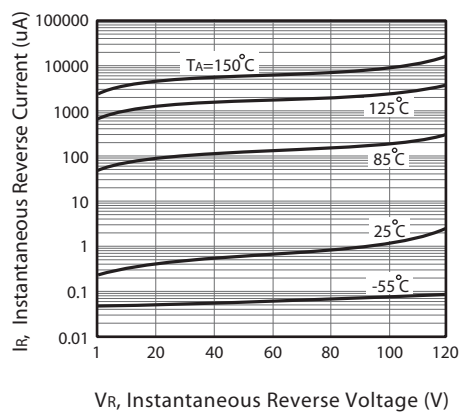


Figure 2. Typical Reverse Characteristics

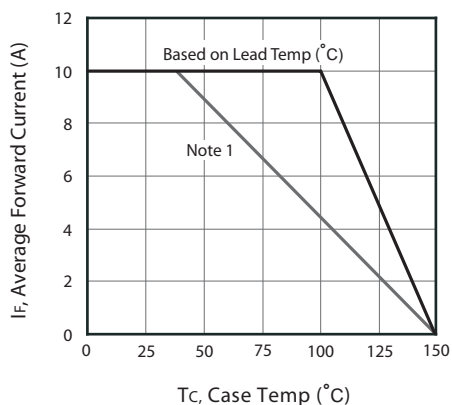


Figure 3. Forward Current Derating Curve

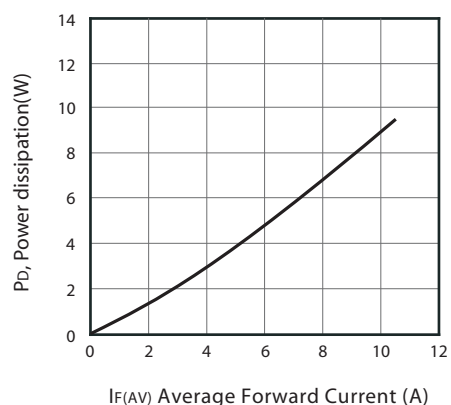


Figure 4. Forward Power Dissipation

**Note :** 1.Device mounted on FR-4 substrate, 2oz copper.

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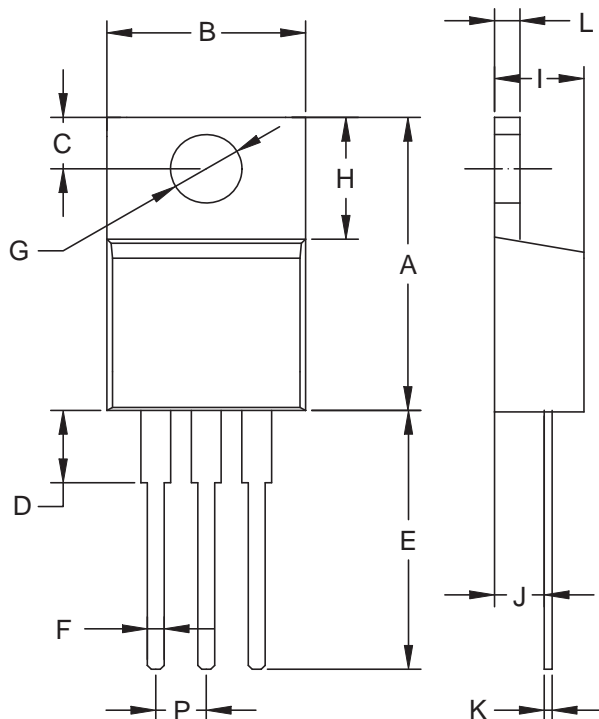
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## PACKAGE OUTLINE DIMENSIONS

TO-220



SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	14.55	15.32	0.573	0.603
B	-	10.50	-	0.412
C	2.62	2.87	0.103	0.113
D	3.56	4.06	0.140	0.160
E	13.00	14.30	0.510	0.560
F	0.68	0.94	0.027	0.037
G	3.74	3.91	0.148	0.154
H	5.84	6.86	0.230	0.270
I	4.44	4.86	0.175	0.185
J	2.54	2.79	0.100	0.110
K	0.35	0.64	0.014	0.025
L	1.14	1.40	0.045	0.055
P	2.41	2.67	0.095	0.105

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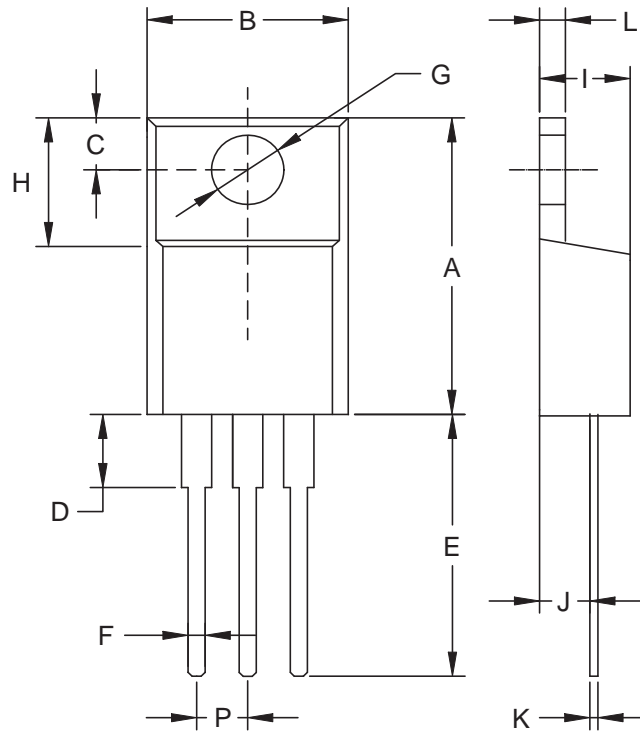
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## PACKAGE OUTLINE DIMENSIONS

TO-220F



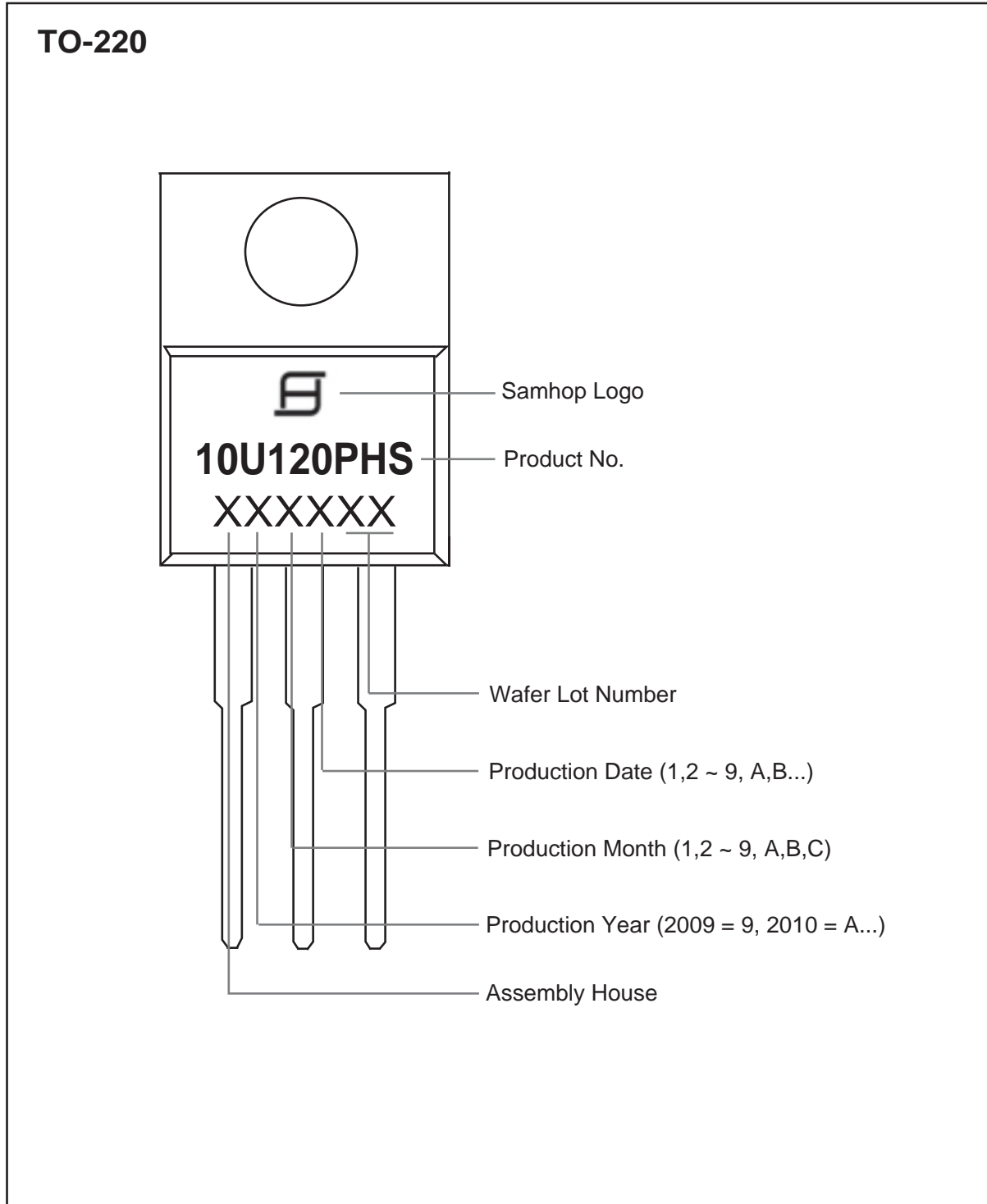
SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	14.50	15.50	0.571	0.610
B	9.72	10.30	0.383	0.406
C	2.80	3.20	0.110	0.126
D	3.38	4.10	0.133	0.162
E	13.00	14.00	0.512	0.551
F	0.70	0.90	0.028	0.035
G	2.90	3.50	0.114	0.138
H	6.80	7.40	0.268	0.291
I	4.10	4.70	0.162	0.185
J	2.60	2.80	0.102	0.110
K	0.45	0.65	0.018	0.026
L	2.46	2.86	0.097	0.113
P	2.25	2.85	0.089	0.113

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## TOP MARKING DEFINITION

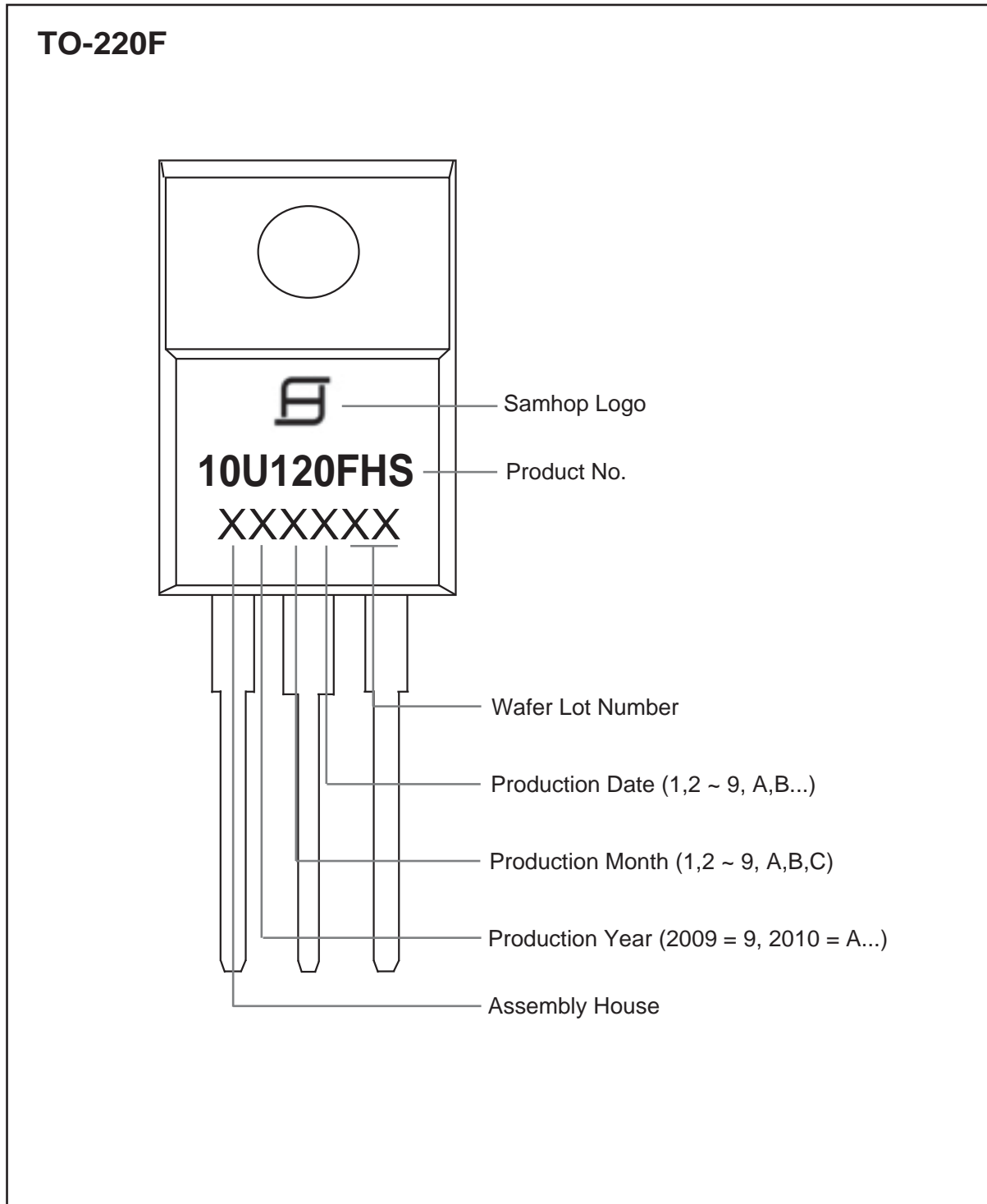


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