

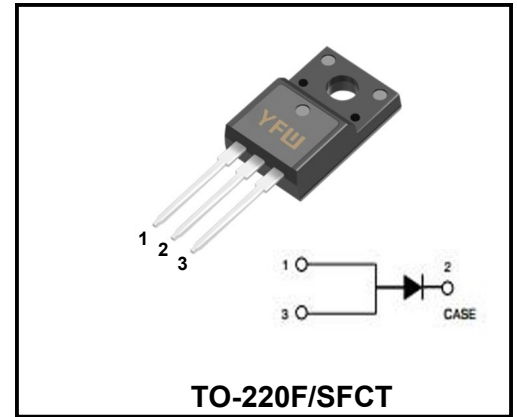
LOW VF SCHOTTKY RECTIFIER

Reverse Voltage - 300 V

Forward Current - 10 A

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
260°C/10 seconds at terminals



MECHANICAL DATA

- ◆ Case: TO-220F/SFCT
- ◆ Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Primary Characteristic

I_o	10A
V_{RRM}	300V
I_{FSM}	150A
V_F	0.79V
$T_J \text{ Max}$	150°C

Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	300	V
Maximum RMS voltage	V_{RMS}	210	V
Maximum DC Blocking Voltage	V_{DC}	300	V
Maximum Average Forward Rectified Current at Tc=110°C	I_o	10	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150	A
Operating Temperature Range	T_J	-50 ~ +150	°C
Storage Temperature Range	T_{STG}	-50 ~ +150	°C
Typical Thermal Resistance (Note1)	$R_{\theta JA} / R_{\theta JC}$	4	°C/W

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbols	Value		Units
Forward Voltage Drop(Note2)		V_F	Typ	Max	V
at $I_F=3A$	TA=25°C		0.70	-	
	TA=125°C		0.57	-	
at $I_F=5A$	TA=25°C		0.83	0.89	
	TA=125°C		0.70	-	
at $I_F=10A$	TA=25°C		0.93	0.98	
	TA=125°C	0.79	-		
Maximum Reverse Current at $V_R=300V$	TA=25°C	I_R	0.5	50	uA
	TA=100°C		1	10	mA

Note2:Pulse test: 300 μs pulse width, 1 % duty cycle

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

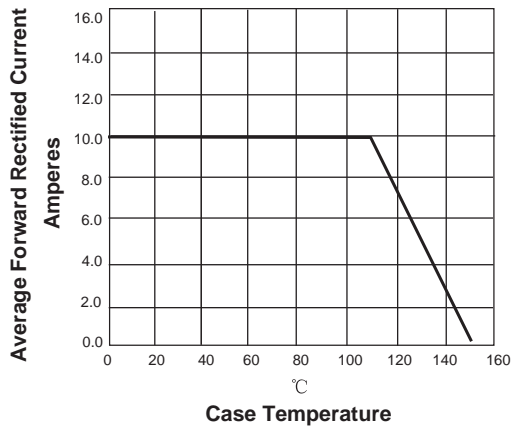


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

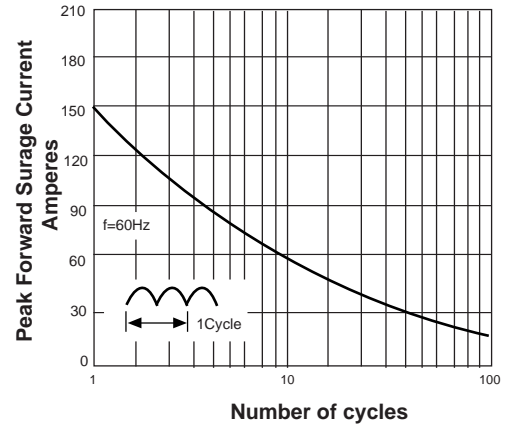


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

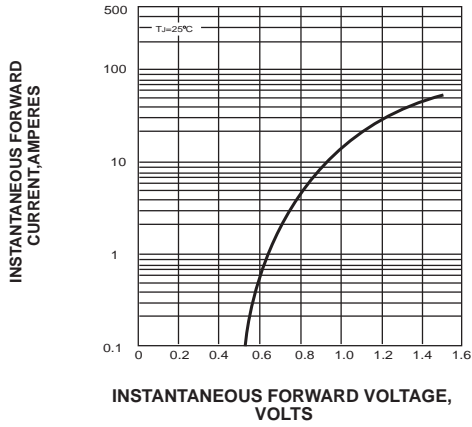
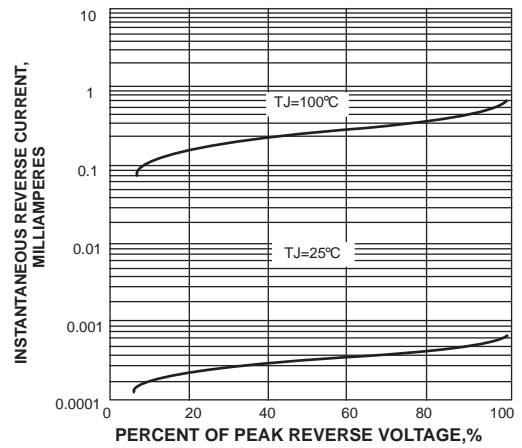
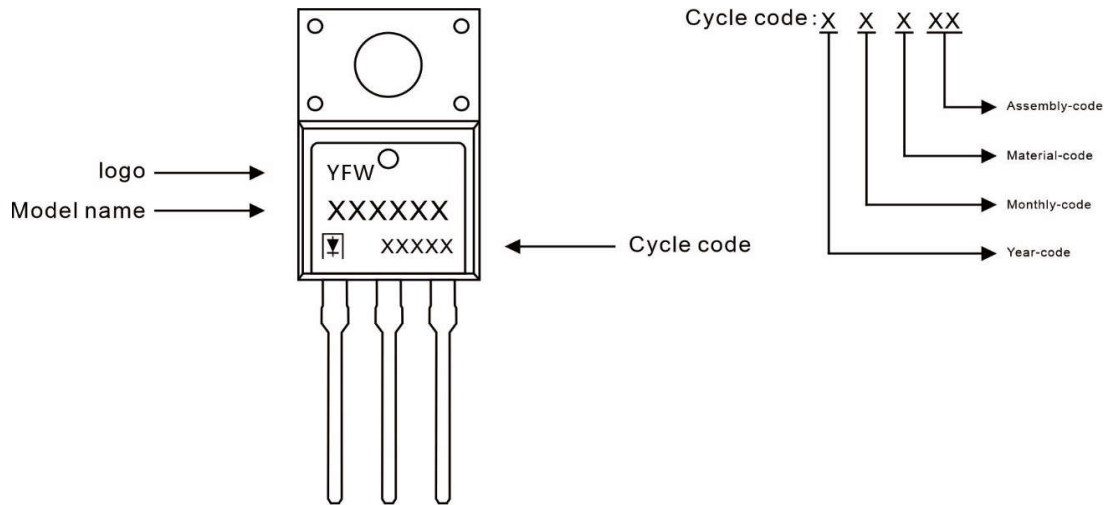


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
HRM10L300SFCT	TO-220F	0.06oz(1.74g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

Package Dimensions

TO-220F

Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.50	4.90	0.177	0.193
A1	2.34	2.74	0.092	0.108
A2	2.66	2.86	0.105	0.113
b	0.75	0.85	0.030	0.033
b1	1.24	1.44	0.049	0.057
c	0.40	0.60	0.016	0.024
D	10.00	10.32	0.394	0.406
E	15.75	16.05	0.620	0.632
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
F	3.10	3.5	0.122	0.138
L	13.50	13.90	0.531	0.547
L1	2.90	3.30	0.114	0.130
Φ	3.10	3.30	0.122	0.130

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