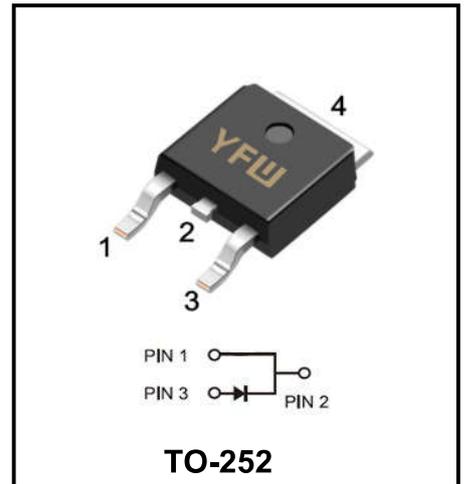


SIC SCHOTTKY BARRIER DIODE

Reverse Voltage - 650 V

Forward Current - 2 A



FEATURES

- ◆ Low Forward Voltage Drop
- ◆ High-Speed Switching
- ◆ Positive Temperature Coefficient on VF
- ◆ Temperature-Independent Switching Behavior

APPLICATIONS

- ◆ Power Factor Correction
- ◆ Sever Mode Power Supplies
- ◆ Uninterruptible Power Supply

BENEFITS

- ◆ High-speed switching
- ◆ Low heat dissipation requirements
- ◆ Reduced EMI
- ◆ High-reliability

Maximum Ratings at Ta=25°C unless otherwise specified

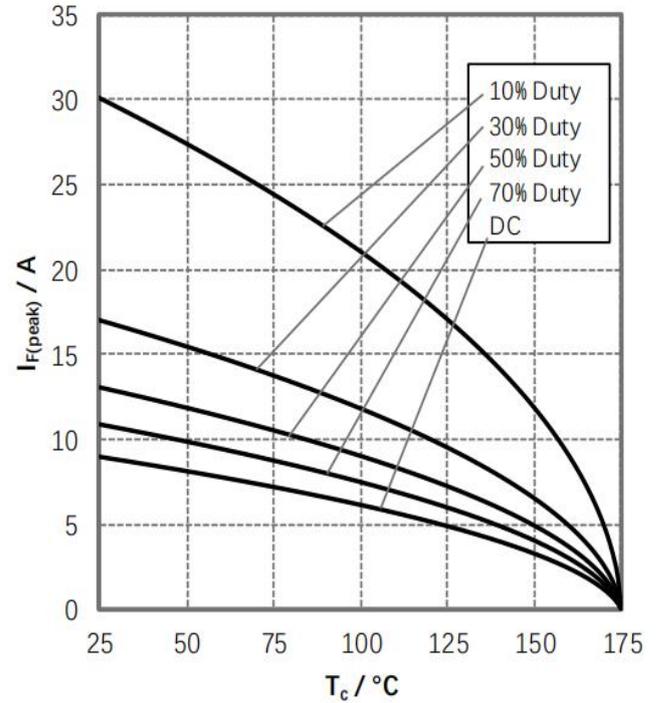
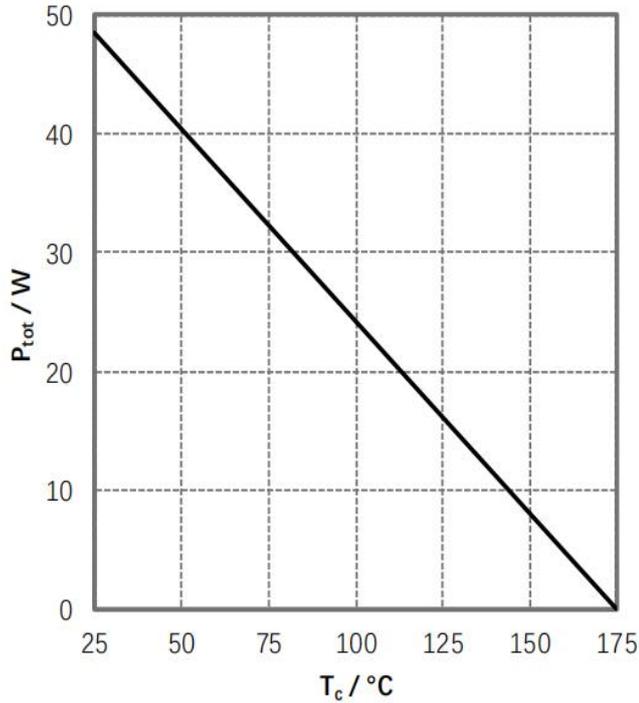
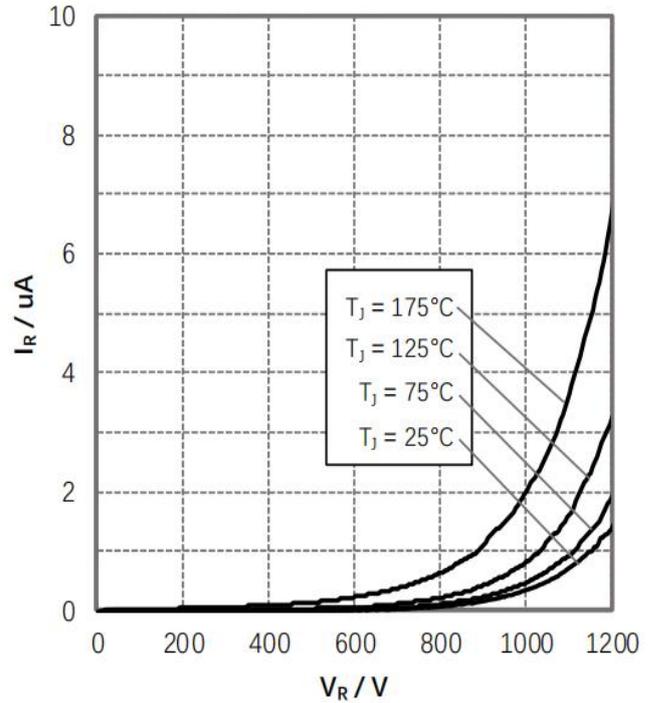
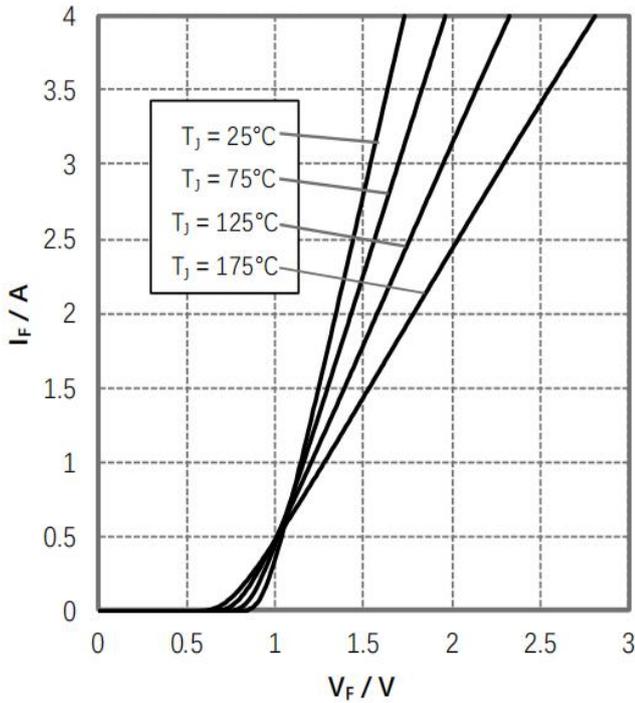
Parameter	Test Conditions	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	T _c = 25°C	V _{RRM}	1200	V
Continuous Forward Current for Rth(j- c,max)	T _c = 25°C	I _F	9	A
	T _c = 135°C		4.3	
	T _c = 164°C		2	
Non-Repetitive Forward Surge Current, Sine Half-Wave	T _c = 25°C, tp = 10ms	I _{FSM}	30	A
Repetitive Forward Surge Current, Sine Half-Wave	T _c = 25°C, tp = 10ms	I _{FRM}	10	A
Operating Temperature Range	-	T _J	-55 to +175	°C
Storage Temperature Range	-	T _{STG}	-55 to +175	°C
Typical Thermal Resistance	-	R _{θJC}	3.1	°C/W

Electrical Characteristics unless otherwise specified

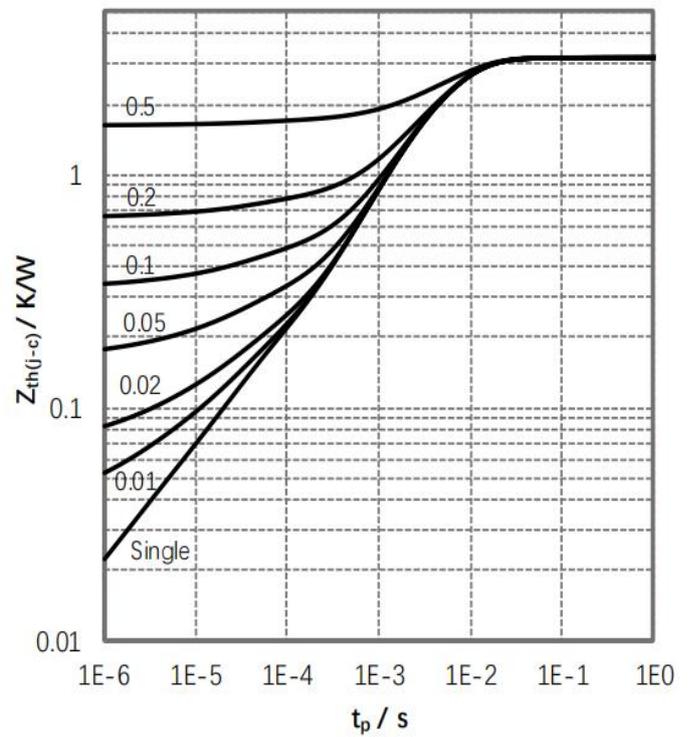
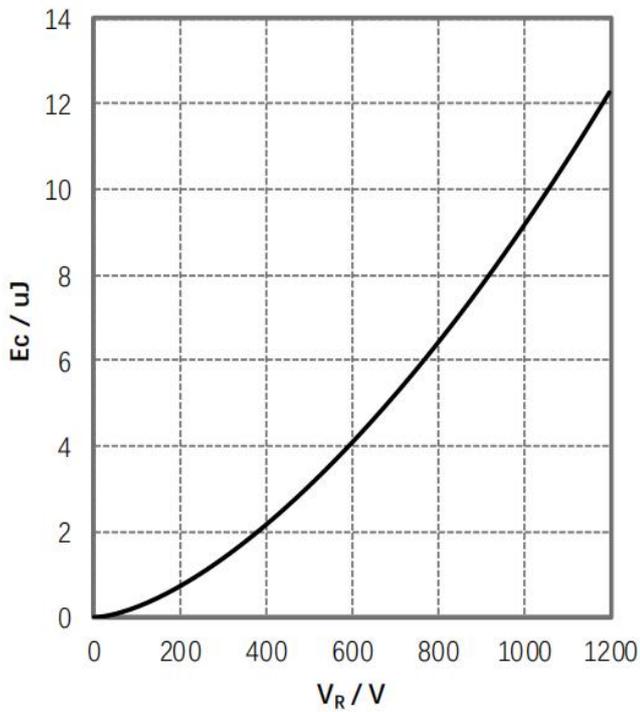
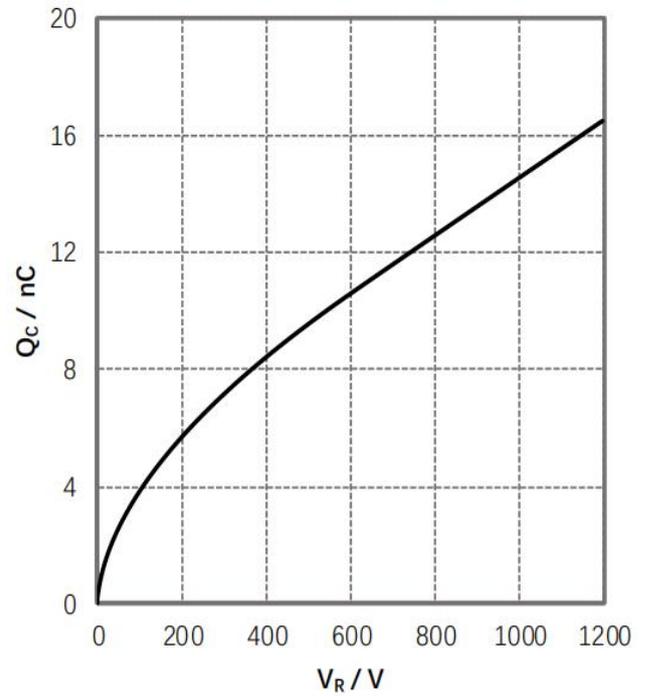
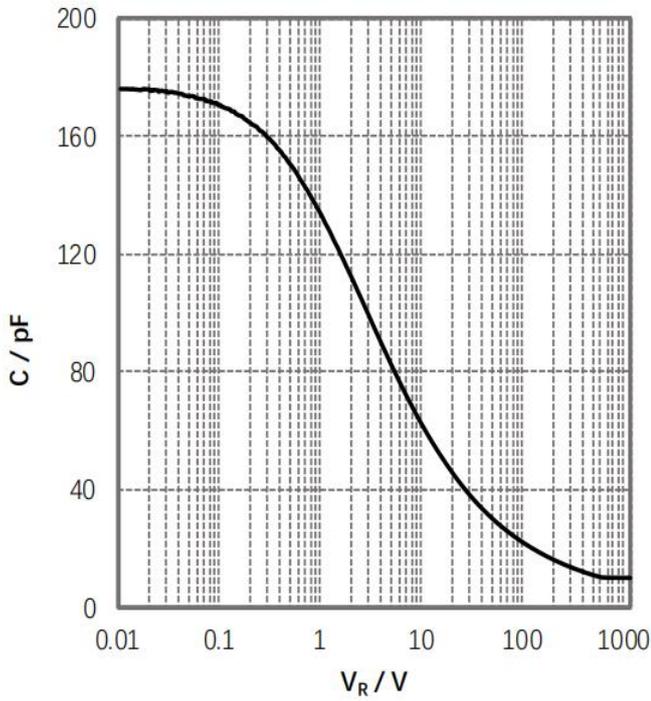
Parameter		Symbol	Value			Unit
			Min	Typ	Max	
Forward Voltage Drop(Note)		V_{DC}	1200		-	V
$I_R = 100\mu A$						
at $I_F=2A$	$T_A=25^\circ C$	V_F	-	1.36	1.5	V
	$T_A=175^\circ C$		-	1.75	-	
Maximum Reverse Current at $V_R=1200V$	$T_A=25^\circ C$	I_R	-	0.2	100	μA
	$T_A=175^\circ C$		-	7.5	-	
Total capacitive charge	$V_R = 800V$	Q_c	-	12	-	nC
Total capacitance	$V_R = 1V, f = 1MHz$	C	-	175	-	pF
	$V_R = 400V, f = 1MHz$		-	12	-	
	$V_R = 800V, f = 1MHz$		-	10	-	
Capacitance stored energy	$V_R = 800V$	E_c	-	6	-	μJ

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

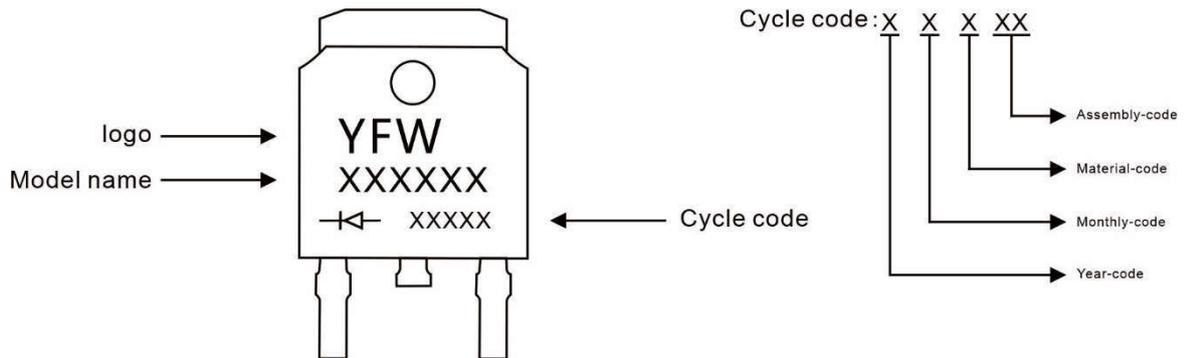
RATINGS AND CHARACTERISTIC CURVES



RATINGS AND CHARACTERISTIC CURVES



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
YFWD302120CS	TO-252	0.011oz(0.32g)	2500pcs/reel	5000pcs/box 25000pcs/Carton

Package Dimensions

TO-252

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.50	0.087	0.098
A1	0.00	0.12	0.000	0.005
A2	2.20	2.40	0.087	0.094
B	1.20	1.60	0.047	0.063
b	0.50	0.70	0.020	0.028
b1	0.70	0.90	0.028	0.035
c	0.40	0.60	0.016	0.024
c1	0.40	0.60	0.016	0.024
D	6.35	6.65	0.250	0.262
D1	5.20	5.40	0.205	0.213
E	5.40	5.70	0.213	0.224
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	10.00	11.00	0.393	0.433
L1	2.70	3.10	0.106	0.122
L2	1.40	1.80	0.055	0.071
L3	0.90	1.50	0.035	0.059

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