

Super Fast Recovery Rectifier Diode

Reverse Voltage - 400V

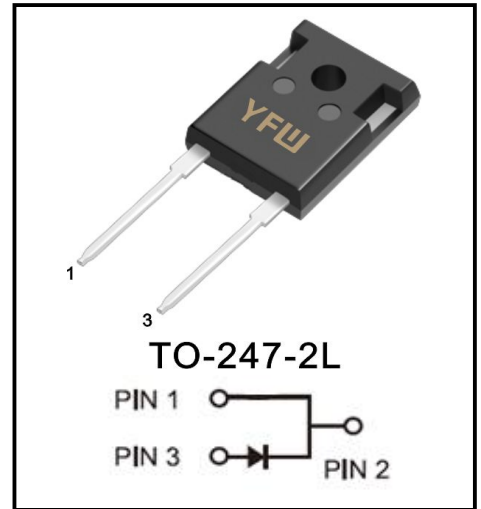
Forward Current - 30A

Product Character

- ◆ Super fast switching for high efficiency.
- ◆ Low reverse leakage.
- ◆ High forward surge current capability.
- ◆ RoHs Product.

Primary Use

Mainly used in switching power supply, PWM pulse width modulator, inverter as a freewheeling and other electronic circuits, high-frequency rectifier diode, diode or damping diode use



Primary Characteristic

I_{FAV}	30A
V_{RRM}	400V
I_{FSM}	300A
V_F	1.5V
T_J Max	175°C

Absolute Maximum Ratings

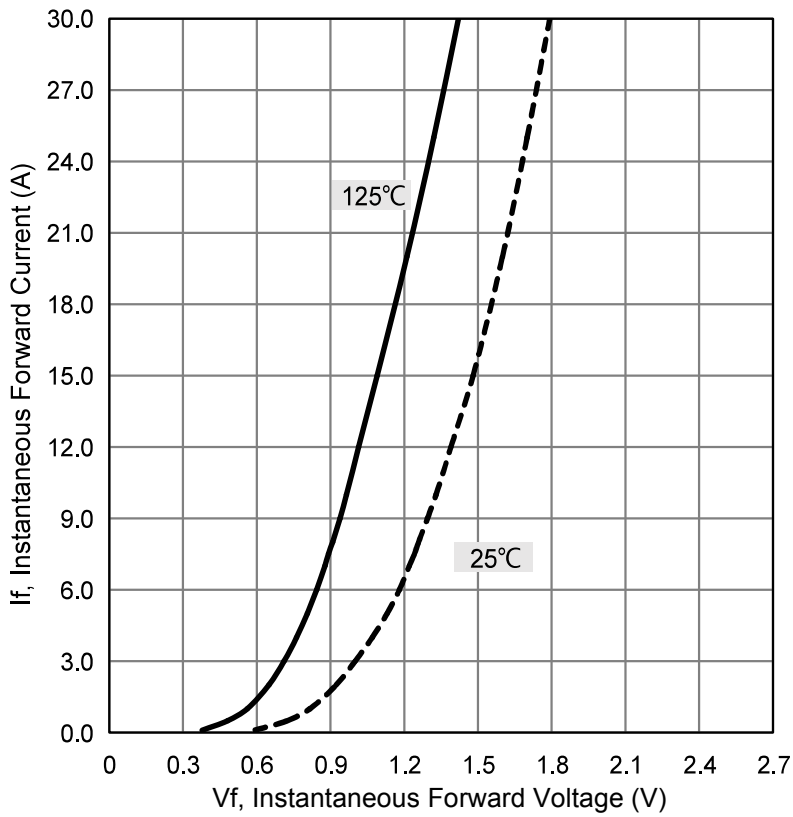
Parameter	Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage	V_{RRM}	400	V
Maximum RMS voltage	V_{RMS}	280	V
Maximum DC Blocking Voltage	V_{DC}	400	V
Average Rectified Forward Current (Rated VR=20Khz Square Wave) - 50% duty cycle	I_{FAV}	30	A
Forward Peak Surge Current(Rated Load 8.3 Half Mssine WaveAccording to JEDEC Method)	I_{FSM}	300	A
Operating Junction Temperature	T_J	-40 ~ 175	°C
Storage Temperature	T_{STG}	-40 ~ 175	°C
Typical Thermal Resistance(per leg)	Package=TO-247-2L	R_{θJC}	0.5
			°C /W

Electricity Character Per Diode(T_J=25°C unless otherwise specified)

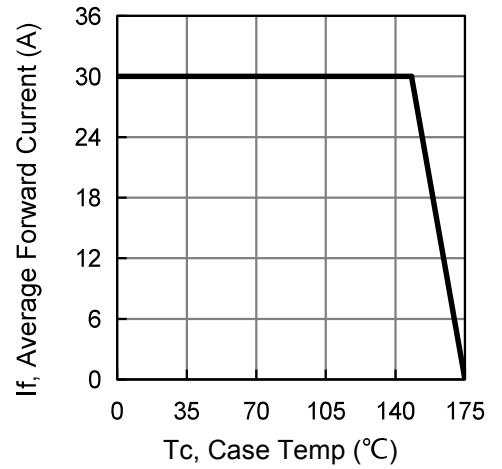
Symbol	Test conditions		Value			Unit
			min	typ	max	
V_B	T _J =25°C	IR=100uA	400			V
I_R	T _J =25°C	VR=400V			0.01	mA
	T _J =125°C	VR=400V			0.10	mA
V_F	T _J =25°C	IF=30A (IFAV=30Ax1)		1.5	1.8	V
	T _J =125°C				1.45	V
T_{RR}	IF=0.5A, IR=1.0A, IREC=0.25A				40	nS
	IF=1A, di/dt=-200A/uS				40	nS
	IF=30A, di/dt=-200A/uS				45	nS

Characteristic Curves

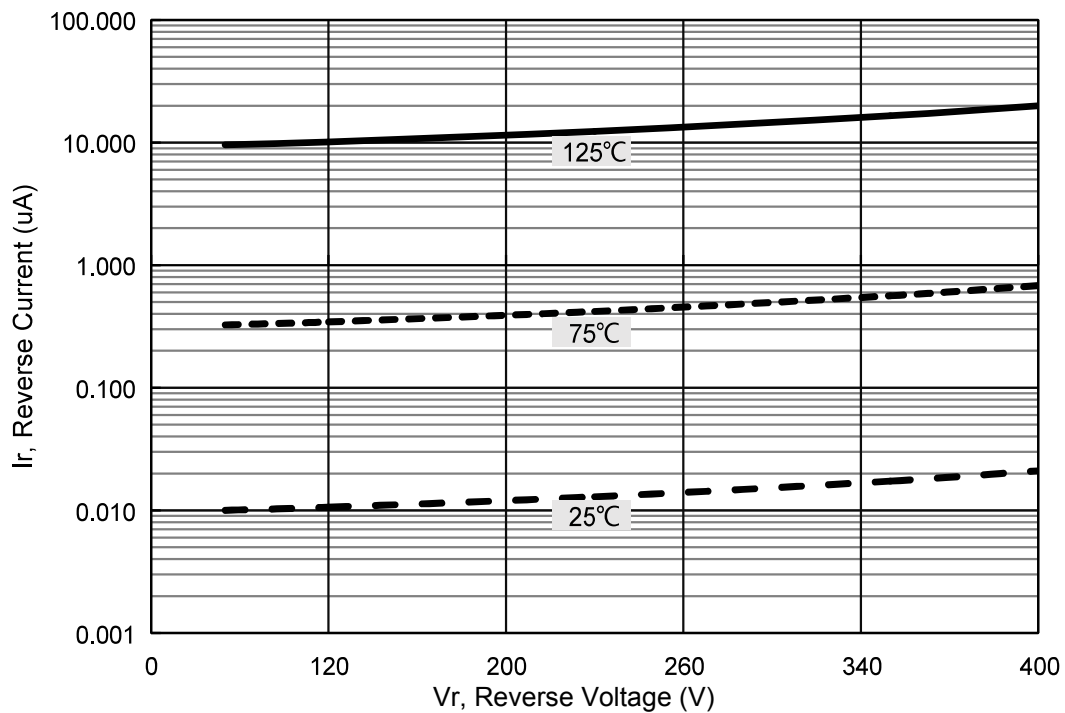
The forward voltage and forward current curve



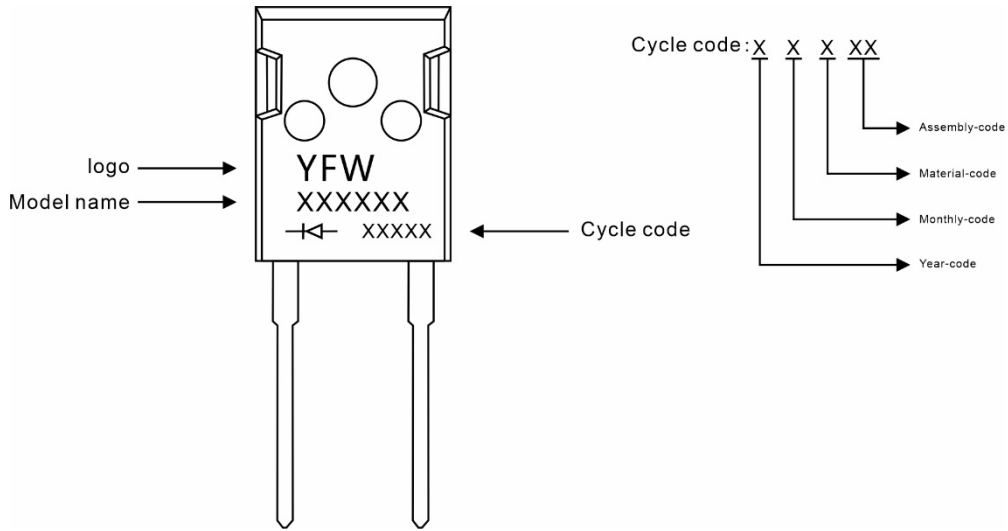
Current derating curve, perement



The reverse leak current and the reverse voltage (single-device) curve.



Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR3040SW	TO-247-2L	0.209oz(5.93g)	30pcs/tube	600PCS/Box 3000PCS/Carton

Package Dimensions

TO-247-2L

Symbol	Dimensions in mm		Dimensions in Inch	
	Min.	Max.	Min.	Max.
A	4.90	5.10	0.193	0.201
A1	1.90	2.10	0.075	0.083
A2	2.29	2.54	0.090	0.100
b	1.00	1.40	0.039	0.055
b1	2.00	2.20	0.079	0.087
c	0.50	0.70	0.020	0.028
D	15.75	16.05	0.620	0.632
E	20.20	20.80	0.795	0.819
e1	10.90 (BSC)		0.429 (BSC)	
F	6.05	6.25	0.238	0.246
F1	5.80	6.00	0.228	0.236
L	20.10	20.40	0.791	0.803
L1	4.05	4.35	0.159	0.171
Φ	3.50	3.70	0.138	0.146

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