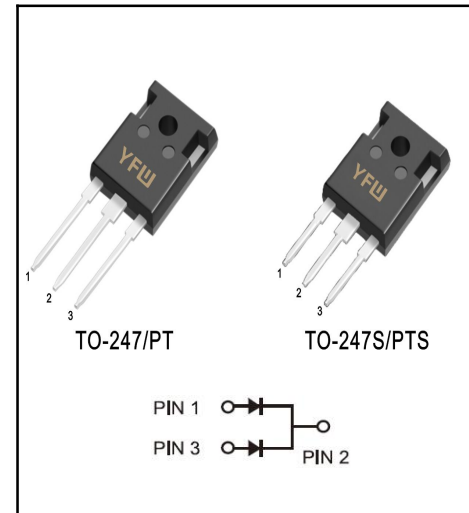


ULTRAFST RECOVERY RECTIFIERS
Reverse Voltage - 200 V
Forward Current - 30 A
FEATURES

- ◆High speed switching capability
- ◆High current capability
- ◆High forward surge capability
- ◆Low power losses, High efficiency
- ◆For use in low voltage, high frequency inverters
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆Case: TO-247/PT TO-247/PTS
- ◆Solder bath temperature 275°C maximum, 10s per JESD22-106


Primary Characteristic

I_o	2*15A
V_RRM	200V
I_FSM	150A
V_F	0.88V
T_J Max	175°C

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

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC Blocking Voltage	V_{DC}	200	V
Maximum Average Forward Rectified Current	Per Leg	15	A
	Total	30	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	I_{FSM}	150	A
Operating Temperature Range	T_J	175	°C
Storage Temperature Range	T_{STG}	-55 ~ +175	°C
Typical Thermal Resistance (Note1) TO-247/PT TO-247/PTS	R_{θJA}/ R_{θJC}	2	°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	
		Typ	Max		
Forward Voltage Drop(Note2) at IF=3A at IF=5A at IF=15A	V_F	TA=25°C	0.79	-	V
		TA=125°C	0.65	-	
		TA=25°C	0.84	-	
		TA=125°C	0.71	-	
		TA=25°C	0.98	1.05	
		TA=125°C	0.88	-	
Maximum Reverse Current at V _R =200V	I_R	TA=25°C	0.1	10	uA
		TA=25°C	2	-	uA
Maximum Reverse Recovery Time at IF=0.5A, IR=1A, IRR=0.25A	T_{RR}	-	-	25	nS

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

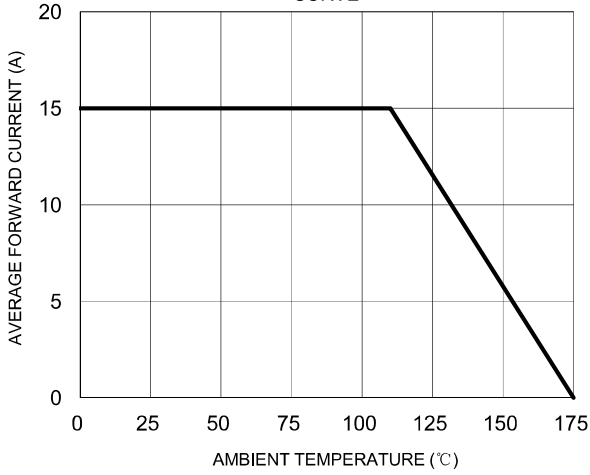


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

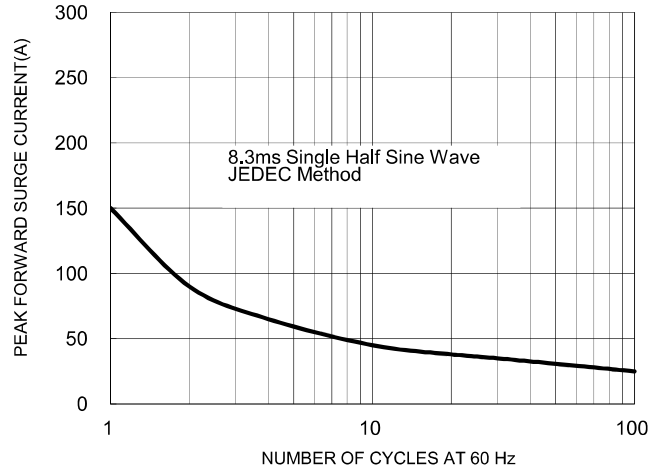


FIG.3 TYPICAL FORWARD CHARACTERISTICS PER LEG

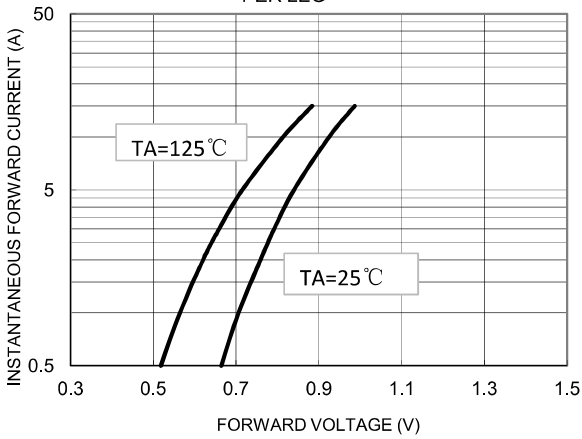
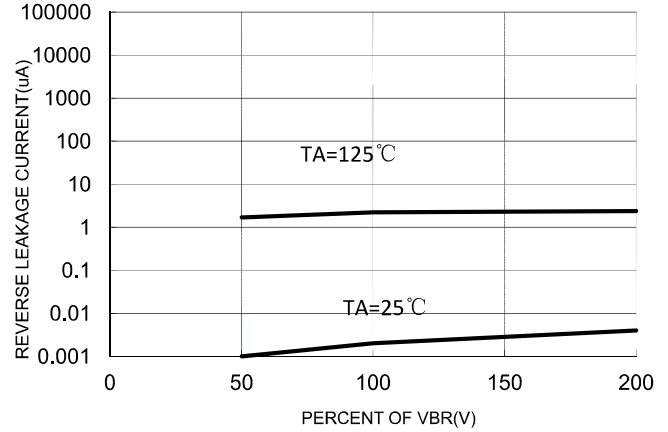
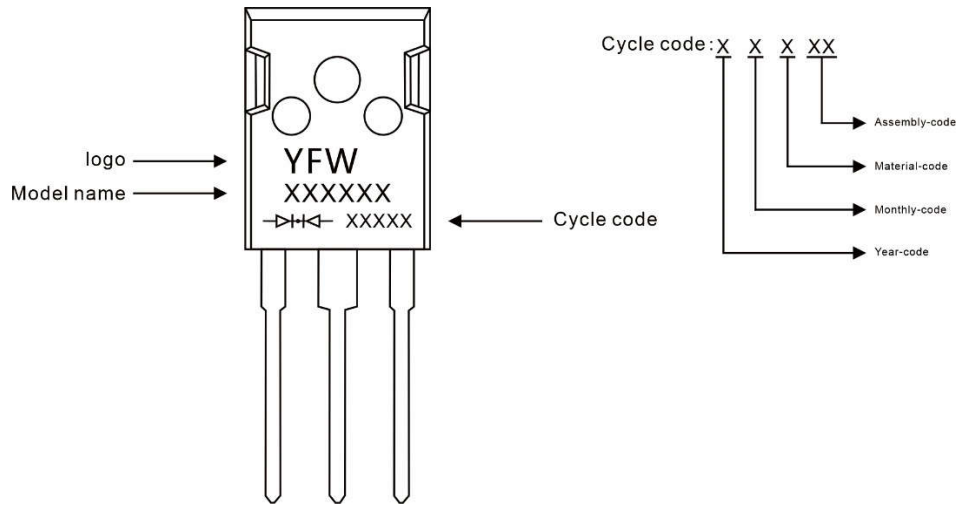


FIG.4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Marking Diagram



Ordering information

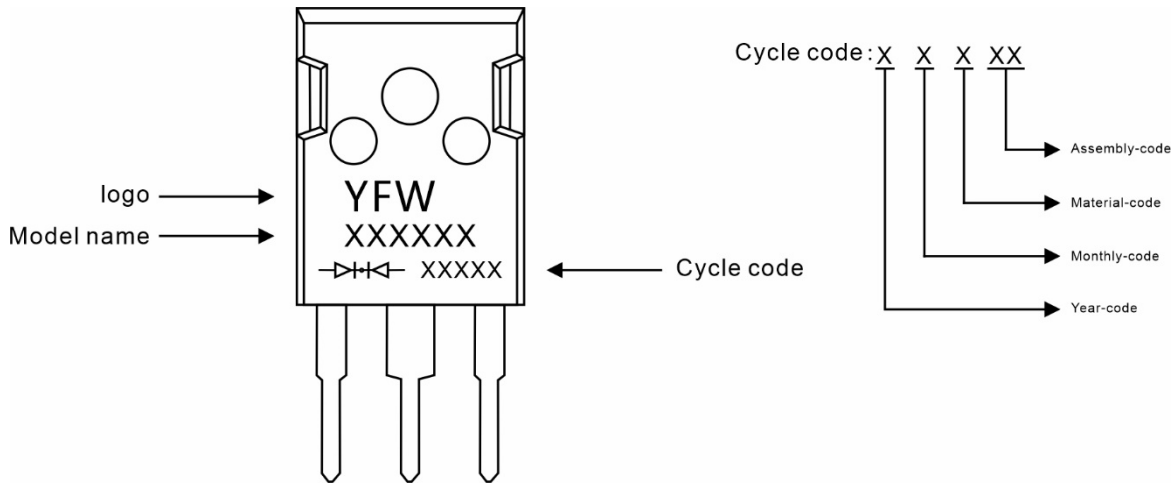
Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR3020PT	TO-247	0.209oz(5.93g)	30pcs/tube	600PCS/Box 2400PCS/Carton

Package Dimensions

TO-247

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
b2	3.00	3.20	0.118	0.126
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
e	5.45 (BSC)		0.215 (BSC)	
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

Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MUR3020PTS	TO-247S	0.158oz(4.48g)	30pcs/tube	600PCS/Box 2400PCS/Carton

Package Dimensions

TO-247S

Symbol	Dimensions in mm		Dimensions in Inch	
	Min.	Max.	Min.	Max.
A	15.0	16.0	0.59	0.63
B	19.5	20.5	0.77	0.81
C	33.5	35.5	1.32	1.40
D	5.0	6.0	0.20	0.24
E	3.5	4.5	0.14	0.18
F	2.5	3.5	0.10	0.14
G	1.75	2.5	0.07	0.14
H	3.0	4.0	0.12	0.16
I	9.0	11.0	0.35	0.43
J	4.9	5.1	0.19	0.20
K	1.0	1.3	0.04	0.05
L	3.75	4.25	0.15	0.17
M	4.75	5.25	0.19	0.21
N	1.8	2.2	0.07	0.09
O	0.45	0.6	0.018	0.024
P	5.08		0.2	
Q	1.2	1.3	0.05	0.051

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