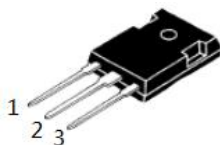
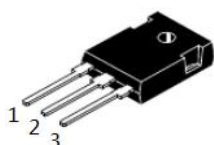


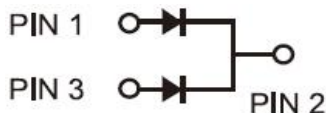
ULTRAFAST RECOVERY RECTIFIERS



TO-247/PT



TO-247S/PTS



FEATURES

- High speed switching capability
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- High reliability
- For use in low voltage, high frequency inverters



RoHS
COMPLIANT

APPLICATIONS

Fast recovery diode, mainly used for rectification, used in high-equipment, The express and ultrafast recovery diodes are suitable high frequency and ultra high frequency circuits, respectively

Primary Characteristic

I_O	2*20A
V_{RRM}	200V
I_{FSM}	380A
V_F	0.84V
T_{jmax}	175°C

MECHANICAL DATA

- **Case:** Molded plastic
- **Polarity:** As marked
- **Mounting Position:** Any
- **Molded Plastic:** UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275°C maximum, 10s per JESD 22-

Maximum Ratings (Per Leg) at $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	V
Working Peak Reverse Voltage	V_{RWM}	200	V
Maximum DC Blocking Voltage	V_{DC}	200	V
Maximum Average Forward Rectified Current	Per Leg	20	A
	Total	40	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	380	A
Operating Temperature Range	T_J	175	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	2	°C/W

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

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V _F	Typ.	Max.	V
at I _F =10A	TA=25°C		0.87	-	
	TA=125°C		0.74	-	
at I _F =15A	TA=25°C		0.91	-	
	TA=125°C		0.80	-	
at I _F =20A	TA=25°C		0.95	1.10	
	TA=125°C		0.84	-	
Maximum Reverse Current at V _R =200V	TA=25°C		I _R	0.1	
	TA=125°C		2	-	μA
Maximum Reverse Recovery Time at I _F =0.5A, I _R =1A,		T _{rr}	28	30	ns

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

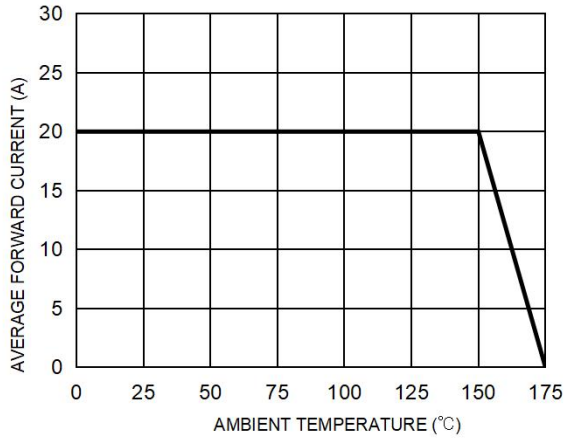


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

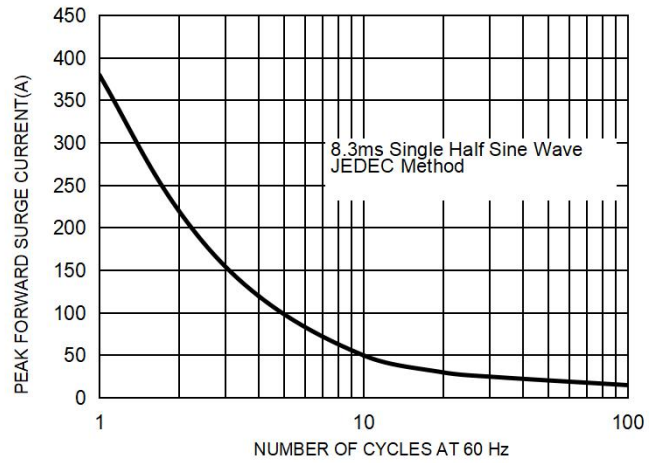


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

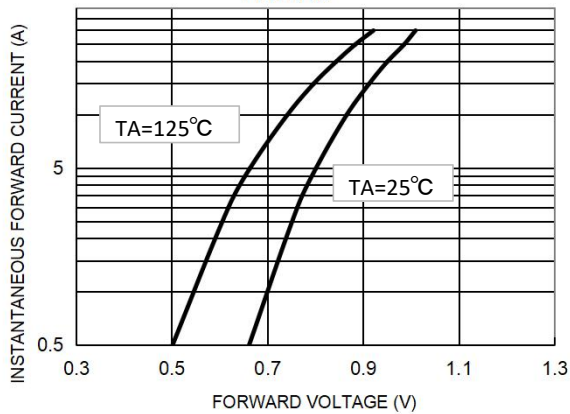
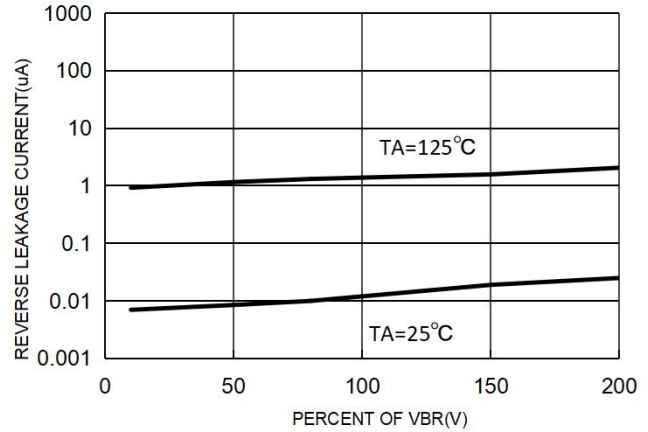


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Package Outline Dimensions millimeters

TO-247

The image shows a technical drawing of a TO-247 package. The top view (left) shows a square body with a central circular hole and four mounting holes. Dimensions A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, and Q are labeled. The side view (right) shows the package's profile, including the mounting holes and the central hole. Dimensions A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, and Q are labeled.

Dim.	Min.	Max.
A	15.0	16.0
B	20.0	21.0
C	40.0	42.0
D	5.5	6.5
E	4.0	5.5
F	2.5	3.5
G	1.75	2.5
H	3.0	4.0
I	8.0	10.0
J	4.9	5.1
K	1.9	2.1
L	3.0	4.0
M	4.75	5.25
N	2.0	3.0
O	0.55	0.65
P	Typ 5.4	
Q	1.17	1.3

All Dimensions in millimeter

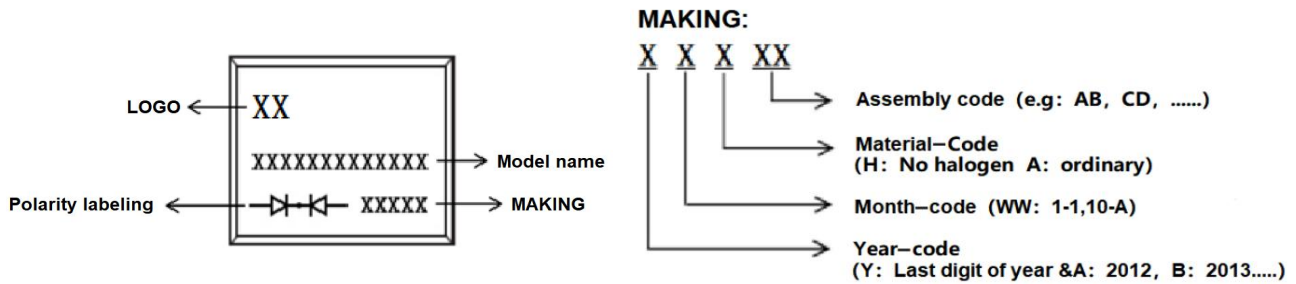
TO-247S

The image shows a technical drawing of a TO-247S package. The top view (left) shows a rectangular body with a central circular hole and two side holes. Dimensions A, B, C, D, E, F, G, I, L, M, P, and Q are indicated. The side view (right) shows the package's profile with dimensions H, J, K, N, and O. The package has a central pin and two side pins.

Dim.	Min.	Max.
A	15.0	16.0
B	19.5	20.5
C	33.5	35.5
D	5.0	6.0
E	3.5	4.5
F	2.5	3.5
G	1.75	2.5
H	3.0	4.0
I	9.0	11.0
J	4.9	5.1
K	1.15	1.35
L	3.0	4.0
M	4.75	5.25
N	2.0	2.5
O	0.45	0.55
P	Typ 5.4	
Q	1.17	1.3

All Dimensions in millimeter

Marking on the body

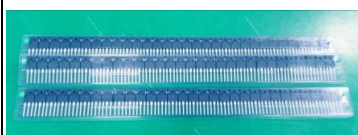


Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MUR4020PT	TO-247	0.209oz(5.93g)	30 pcs / tube	600pcs/box 3000pcs/carton
MUR4020PTS	TO-247S	0.158oz(4.48g)	30 pcs / tube	600pcs/box 3000pcs/carton

Note: For Halogen Free molding compound, add "H" suffix to part number above.

packing instruction

PKG	最小包装	内盒	外箱
TO-247 TO-247S			
	30pcs/管	600pcs/盒	3000pcs/箱

Notice

1. All product, product specifications and data are subject to change without notice to improve. The right to explain is owned by LINGXUN electronics company.

2. Confirm that operation temperature is within the specified range described in the product specification. Avoid applying power exceeding normal rated power;

exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.

3. LINGXUN electronics shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.