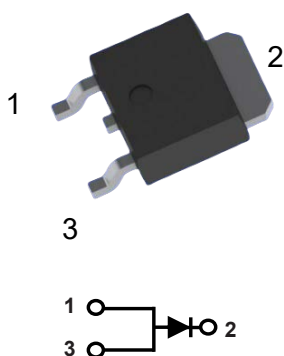


Superfast Recovery Rectifier

**TO-252
MUR1050D-S**



Features

- Low forward voltage drop
- Low leakage current
- High current capability
- Super fast switching speed
- High forward surge capability
- High reliability

Mechanical Data

- Epoxy: UL 94V-O rate flame retardant
- Lead: lead solderable per MIL-STD-202, method 208 guaranteed
- Mounting position: Any

Parameter	Symbols	MUR1050D-S		Units
Maximum Repetitive Peak Reverse Voltage	VRRM	500		V
Maximum RMS voltage	VRMS	350		V
Maximum DC Blocking Voltage	VDC	500		V
Maximum Average Forward Rectified Current	I(AV)	10.0		A
Reverse Recovery Time. IF=0.5A, IR=1A, IRR=0.25A	Trr	35		ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	140		A
I ² t rating for fusing (1ms < t < 10ms)	I ² t	81.3		A ² S
Instantaneous Forward Voltage per Diode@TA=25 °C	VF	Typ	Max	V
		IF=2A	0.88	
		IF=10A	1.30	
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	IR	5 250		μA
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +150		°C
Typical thermal resistance (Note 1)	RthJC	4.0		°C/W

Note: 1. Thermal resistance junction to case, lead and ambient in accordance with JESD-51.
Unit mounted on glass-epoxy substrate with 1oz/ft² 20x20 mm copper pad per pin with heatsink

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

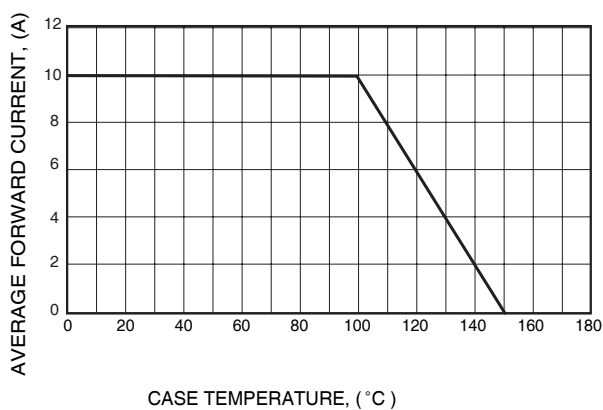


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

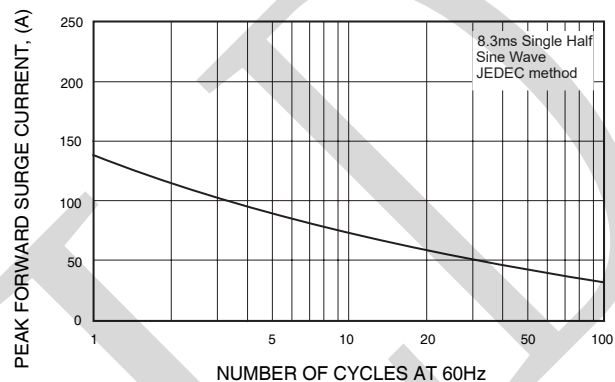


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

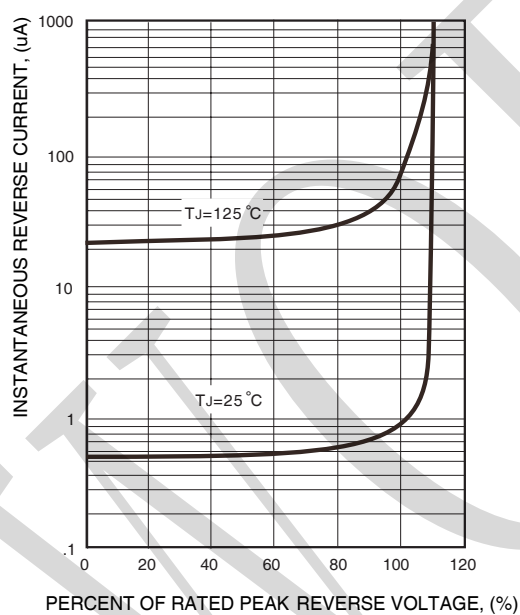
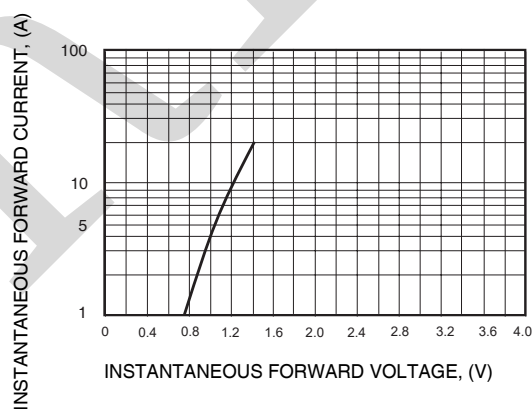
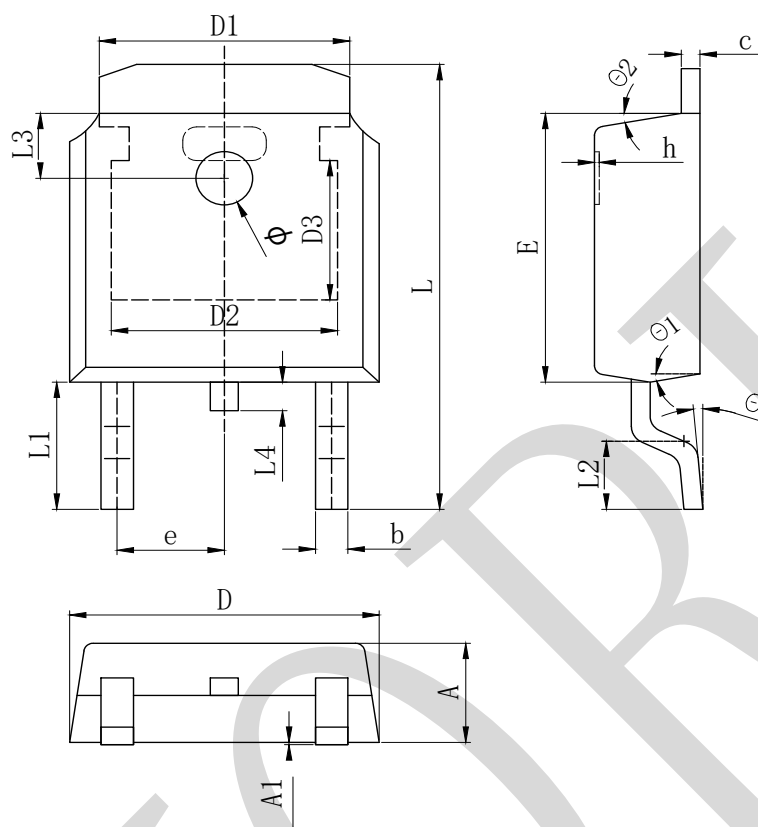


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS

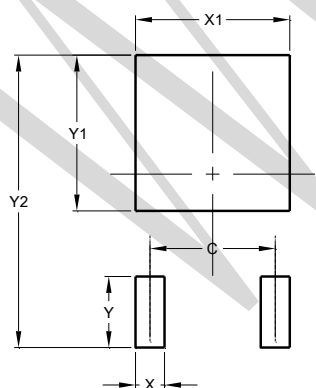
TO-252 Package Information



SYMBOL	MILLIMETER		
	MIN	Typ.	MAX
A	2.200	2.300	2.400
A1	0.000		0.127
b	0.640	0.690	0.740
c	0.460	0.520	0.580
D	6.500	6.600	6.700
D1	5.334 REF		
D2	4.826 REF		
D3	3.166 REF		
E	6.000	6.100	6.200
e	2.286 TYP		
h	0.000	0.100	0.200
L	9.900	10.100	10.300
L1	2.888 REF		
L2	1.400	1.550	1.700
L3	1.600 REF		
L4	0.600	0.800	1.000
Φ	1.100	1.200	1.300
θ	0°		8°
θ 1	9° TYP		
θ 2	9° TYP		

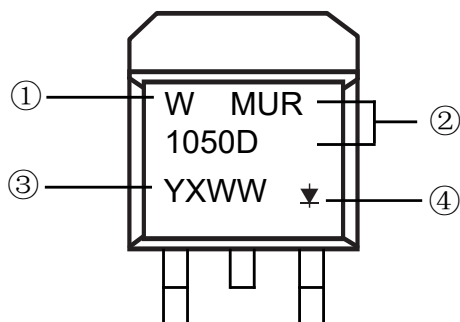
Suggested Pad Layout

TO252 (DPAK)



Dimensions	Value (in mm)
C	4.572
X	1.060
X1	5.632
Y	2.600
Y1	5.700
Y2	10.700

Marking Information



①W : Company's trademark
 ②Product model : MUR1050D

③PDC information:

Y X WW
 WW:Week code(01 to 53)
 X:Internal identification code
 Y:Year code(ex:0=2020)

④  Single wafer