LITEON LITE-ON SEMICONDUCTORS

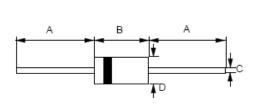
SUPER FAST GLASS PASSIVATED RECTIFIERS

FEATURES

- · Glass passivated chip
- Super fast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0



<u>DO-201AD</u>



DO-201AD

Min.

25.4

7.30

1.20

4.80

All Dimensions in millimeter

Max.

9.50

1.30

5.30

Dim.

А

В

С

D

MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic
- Polarity : Color band denotes cathode
- Weight: 0.04 ounce, 1.1 grams
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER			SYMBOL	MUR460E			UNIT
Maximum Repetitive Peak Reverse Voltage			V _{RRM}	600			V
Maximum RMS Voltage			V _{RMS}	420			V
Maximum DC Blocking Voltage			V _{DC}	600			V
Average Rectified Output Current @TL=120°C				4.0			А
Peak Forward Surge Current 8.3ms single half sine-wave, Tj=25 $^\circ\!\mathrm{C}$			I _{FSM}	110			А
${\rm l}^2 t$ Rating for fusing (3ms $\leq t \leq$ 8.3ms)			l ² t	50			A ² S
Operating and Storage Temperature Range			T _J , T _{STG}	-55 to +175			°C
PARAMETER	TEST CONDITIONS		SYMBOL	Min.	Тур.	Max.	UNIT
Forward Voltage (1)	IF=4A	Tj=25°C	VF			1.28	V
Maximum DC Reverse Current	VR=600V	Tj=25°C Tj=150°C	I _R			10 250	uA
Reverse Recovery Time (Note1)			Trr			50	ns
Single pulse avalanche energy @15mH			E _{AS}			10.8	mJ
THERMAL CHARACTERISTIC			SYMBOL	Typical			UNIT
Typical Junction Capacitance per element (Note 2)				60			pF
Typical thermal Resistance, Junction to Lead (Note 3)				11			°C/W

Note :

REV. 0, Dec-2012, KDGF10

1. Measured with IF=0.5A,IR=1A,IRR=0.25A.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Measured point from body 1mm by lead.

MUR460E

RATING AND CHARACTERISTIC CURVES MUR460E

FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT FIG.1-FORWARD CURRENT DERATING CURVE 5 120 4.5 PEAK FORWARD SURGE CURRENT, (A) 100 AVERAGE FORWARD CURRENT, (A) 4 1 3.5 80 Rth JL=11°C/W 3 60 2.5 2 40 1.5 1 20 0.5 8.3ms Single Half Sine-Wave 0 0 1 10 100 0 25 50 75 100 125 150 175 NUMBER OF CYCLES AT 60 Hz LEAD TEMPERATURE, (C) FIG.3- TYPICAL FORWARD CHARACTERISTICS FIG.4- TYPICAL JUNCTION CAPACITANCE 100 100 11 3 Tj=150℃ INSTANTANEOUS FORWARD CURRENT 10 CAPACITANCE, (pF) 1 **Tj=25**℃ 0.1 Tj=25℃, f=1MHz 0.01 10 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.1 1.2 1.3 0.1 0.2 1 1.4 1.5 1 10 100 INSTANT ANEOUS FORWARD VOLTAGE, VOLTS REVERSE VOLTAGE, (V) FIG.5- TYPICAL REVERSE CHARACTERISTICS FIG.6 NON-REPETITIVE SURGE CURRENT 100 300 Tj=150℃ Square Wave (N) PEAK FORWARD SURGE CURRENT,(A) INSTANTANEOUS REVERSE CURRENT, 250 Tp=1ms 10 Tj=125℃ Tj=100℃ 200 Tp=2ms 1 Tj=75℃ 150 Tp=3ms **Tj=50**℃ 0.1 Tp=5ms 100 Tj=25℃ Tp=8.3ms 0.01 50 20 30 40 50 60 70 80 90 100 25 50 75 100 125 PERCENT OF RATED PEAK REVERSE VOLTAGE, (V) AMBIENT TEMPERATURE,(℃)

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