LITE-ON SEMICONDUCTOR

1N5391 thru 1N5399

PLASTIC SILICON RECTIFIERS

REVERSE VOLTAGE – 50 to 1000 Volts
FORWARD CURRENT – 1.5 Amperes

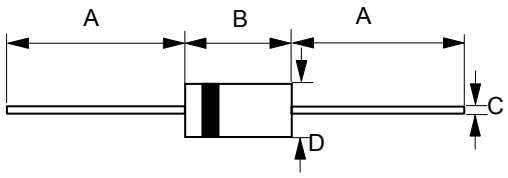
FEATURES

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability

MECHANICAL DATA

- Case: JEDEC DO-15, molding compound has UL flammability classification 94V-0
- Polarity : Color band denotes cathode
- Weight : 0.015 ounces, 0.4 grams
- Mounting position : Any

DO-15



DO-15		
DIM	**MIN**	**MAX**
A	**25.4**	**--**
B	**5.80**	**7.60**
C	**0.71 Ø**	**0.86 Ø**
D	**2.60 Ø**	**3.60 Ø**
All dimension in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	1N5391	1N5392	1N5393	1N5394	1N5395	1N5396	1N5397	1N5398	1N5399	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	500	600	800	1000	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	500	600	800	1000	V
Average rectified output current per device @T_L = 70°C	$I_{(AV)}$	1.5									A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load T_J = 25°C	I_{FSM}	50									A
Peak forward surge current 1ms single half sine-wave superimposed on rated load T_J = 25°C	I_{FSM}	100									A
I^2t rating for fusing (t = 8.3ms)	I^2t	10.4									A^2S
Operating temperature range	T_J	-55 to +125									°C
Storage temperature range	T_{STG}	-55 to +150									°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	MAX.	UNIT
Forward voltage	IF = 1.5A T_J = 25°C	V_F	1.1	V
Leakage current	VR at rated T_J = 25°C T_J = 100°C	I_R	5.0 50	uA
Typical junction capacitance (Note 1)		C_J	20	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Thermal resistance (Note 2)	$RthJ_L$	26	°C/W

REV. 7, MAY-2015, KDAD01

Note :
(1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
(2) Thermal resistance junction to lead

RATING AND CHARACTERISTIC CURVES
1N5391 thru 1N5399

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

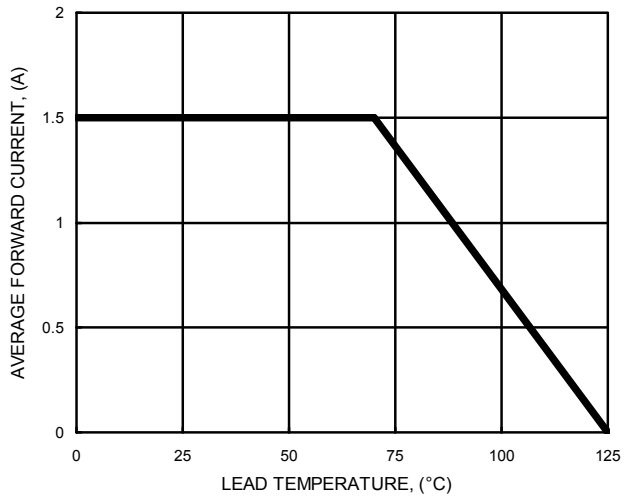


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

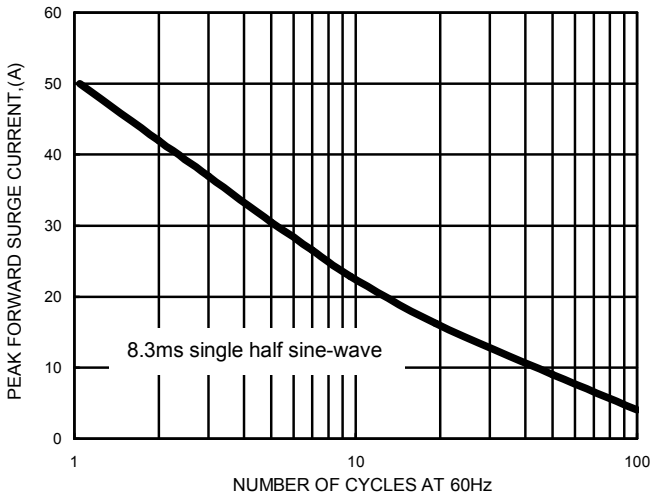


FIG.3- TYPICAL FORWORD CHARACTERISTICS

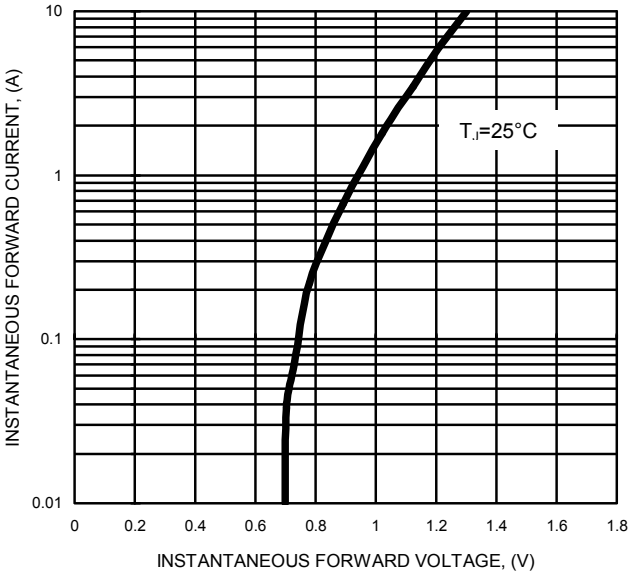
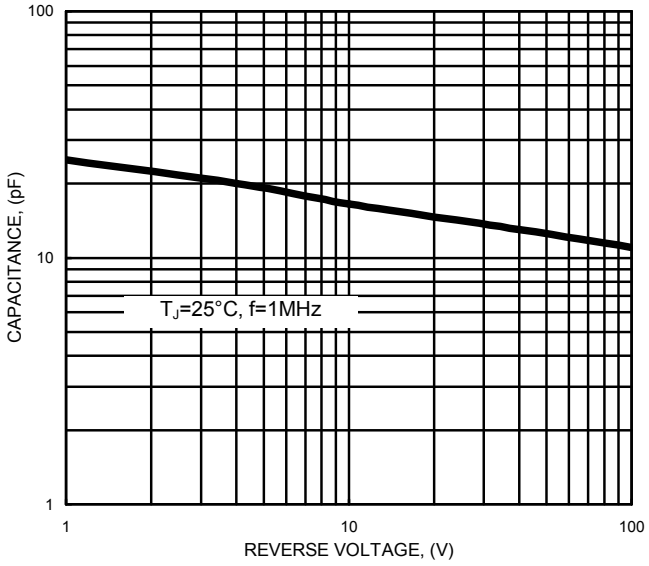


FIG.4- TYPICAL JUNCTION CAPACITANCE



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