

**PLASTIC SILICON RECTIFIERS**

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

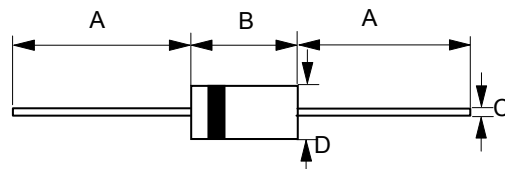
**FEATURES**

- 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 @ $T_L = 70^\circ\text{C}$	$I_{(AV)}$	1.5									A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load $T_J = 25^\circ\text{C}$	$I_{FSM}$	50									A
Peak forward surge current 1ms single half sine-wave superimposed on rated load $T_J = 25^\circ\text{C}$	$I_{FSM}$	100									A
$I^2 t$ rating for fusing ( $t = 8.3\text{ms}$ )	$I^2 t$	10.4									$\text{A}^2\text{S}$
Operating temperature range	$T_J$	-55 to +125									$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150									$^\circ\text{C}$

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	MAX.	UNIT
Forward voltage	$I_F = 1.5\text{A}$ $T_J = 25^\circ\text{C}$	$V_F$	1.1	V
Leakage current	$V_R$ at rated $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	$I_R$	5.0 50	$\mu\text{A}$
Typical junction capacitance (Note 1)		$C_J$	20	pF

**THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP.	UNIT
Thermal resistance (Note 2)	$R_{thJL}$	26	$^\circ\text{C/W}$

**Note :**

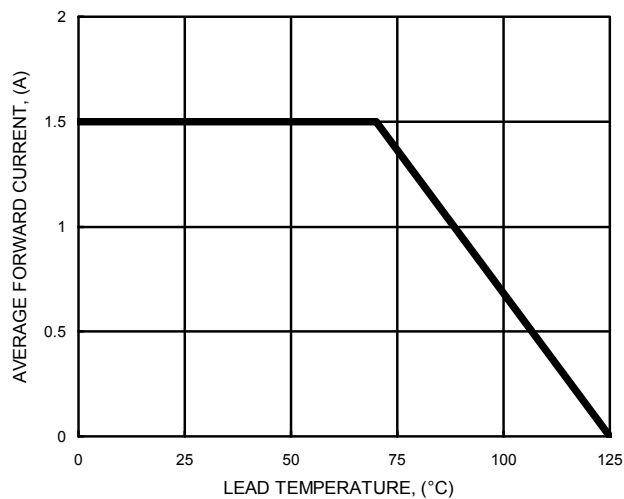
- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
- (2) Thermal resistance junction to lead

REV. 7, MAY-2015, KDAD01

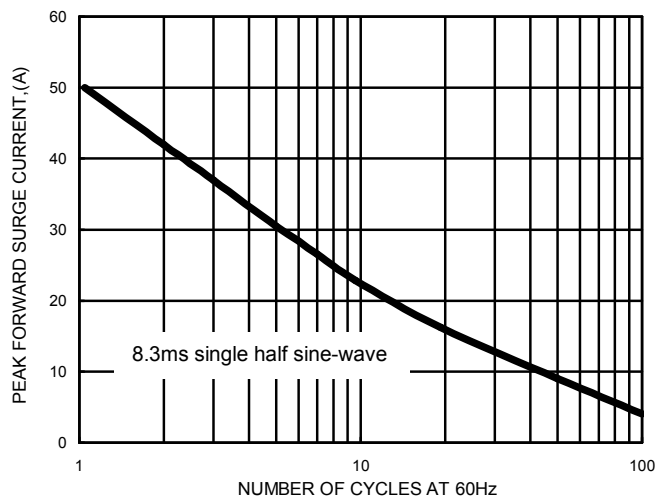
# RATING AND CHARACTERISTIC CURVES 1N5391 thru 1N5399

**LITEON**

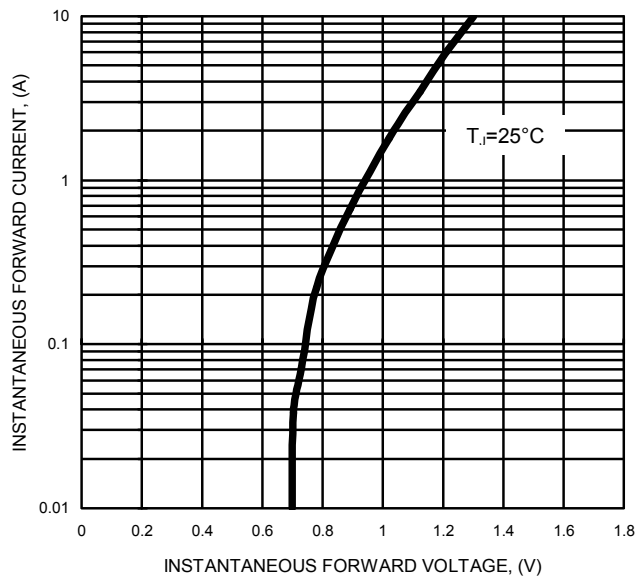
**FIG.1- FORWARD CURRENT DERATING CURVE**



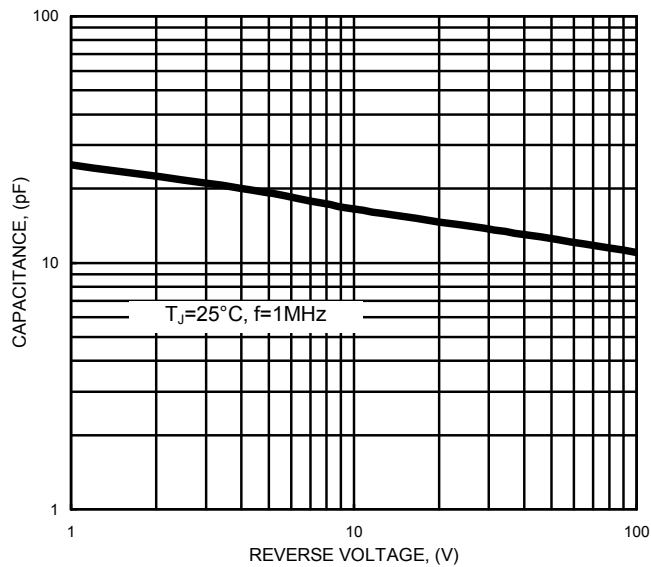
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



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