

**SURFACE MOUNT  
SUPER FAST RECTIFIERS**

**REVERSE VOLTAGE – 600 Volts  
FORWARD CURRENT – 4.0 Amperes**

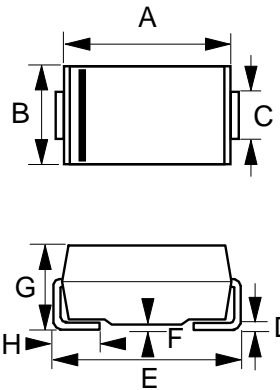
**FEATURES**

- Glass passivated chip
- Super fast switching for high efficiency
- For surface mounted applications
- Low forward voltage drop and high current capability
- Low reverse leakage current

**MECHANICAL DATA**

- Case: Molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.007 ounces, 0.21 grams
- Plastic material has UL flammability classification 94V-0
- Marking: U4J

**SMC**



SMC		
DIM.	MIN.	MAX
A	6.60	7.11
B	5.59	6.22
C	2.92	3.18
D	0.15	0.31
E	7.75	8.13
F	0.05	0.20
G	2.01	2.50
H	0.76	1.52

All dimension in millimeter

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

**ABSOLUTE RATINGS**

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	600	V
Maximum DC blocking voltage	$V_{DC}$	600	V
Maximum average forward rectified current	@ $T_C=120^\circ\text{C}$ $I_{(AV)}$	4.0	A
Peak forward surge single half sine-wave	@ $t_p=8.3\text{ms}$ @ $t_p=1\text{ms}$ $I_{FSM}$	110 220	A
Single pulse avalanche energy	@ $L=15\text{mH}$ $E_{AS}$	10.8	mJ
Operation junction and storage temperature range	$T_J, T_{STG}$	-55 to +150	°C

**STATIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Maximum Forward voltage	$I_F = 4.0\text{A}$ $T_J=25^\circ\text{C}$	$V_F$	1.28	V
Maximum Reverse leakage current	$V_R = 600\text{V}$ $T_J=25^\circ\text{C}$ $T_J=150^\circ\text{C}$	$I_R$	10 250	uA
Typical junction capacitance (Note1)		$C_J$	40	pF

**THERMAL CHARACTERISTICS**

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note2,3)	$R_{thJC}$ $R_{thjL}$ $R_{thjA}$	7 15 40	°C/W

**DYNAMIC ELECTRICAL CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	MAX	UNIT
Reverse recovery time	$I_F=0.5\text{A}$ , $I_{rr}=0.25\text{A}$ , $I_R=1.0\text{A}$ $T_J=25^\circ\text{C}$	$T_{RR}$	50	ns

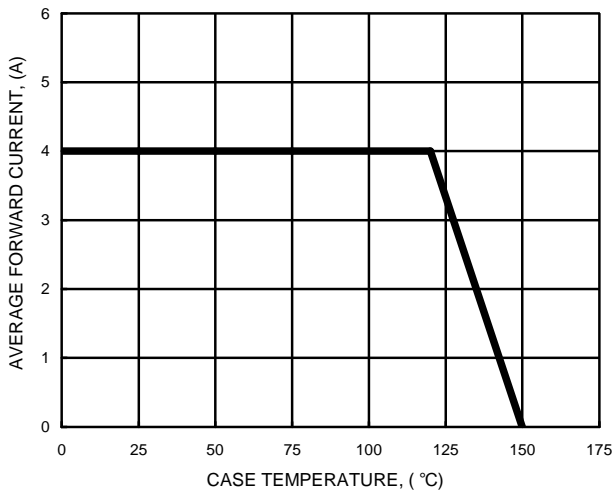
**Note :**

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
- (2) Thermal resistance junction to lead
- (3) Unit mounted on glass epoxy substrate 1oz/ft<sup>2</sup> 80mm x 80mm copper pad

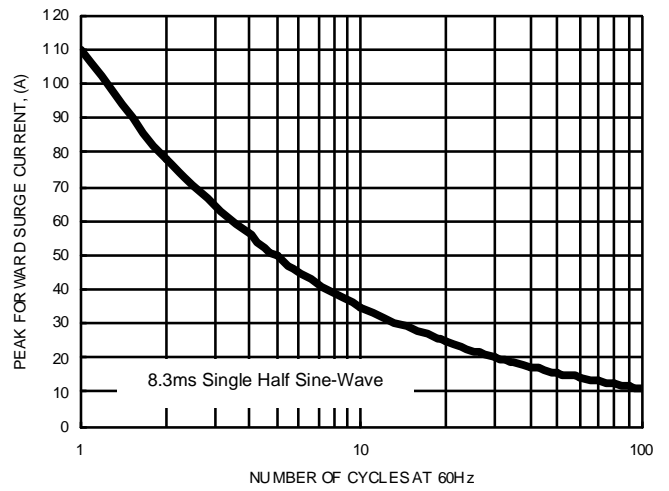
# RATING AND CHARACTERISTIC CURVES MURS460C



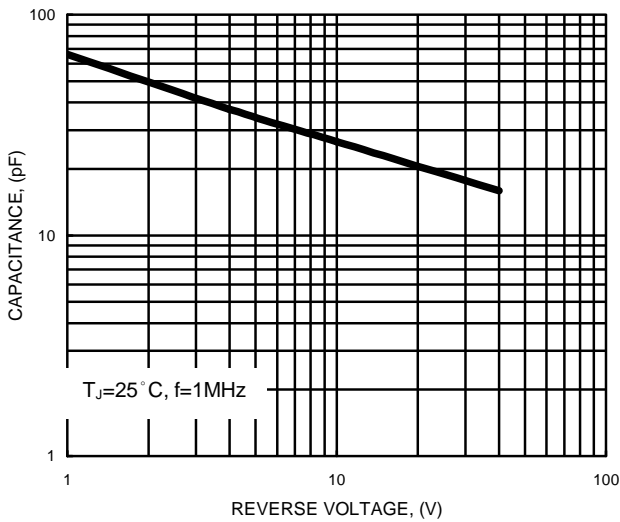
**FIG.1- FORWARD CURRENT DERATING CURVE**



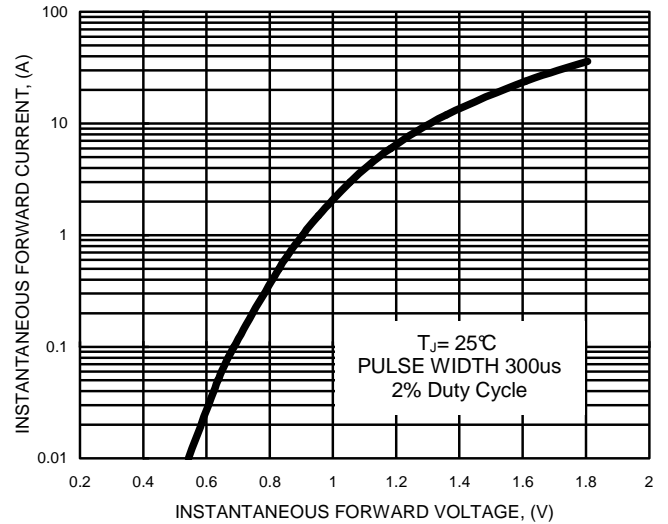
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



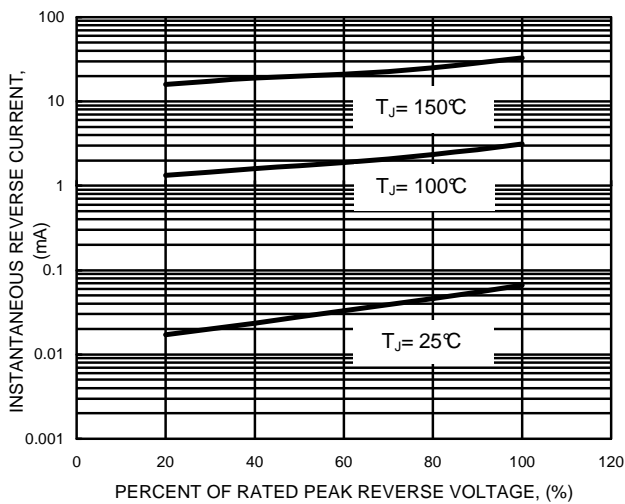
**FIG.3- TYPICAL JUNCTION CAPACITANCE**



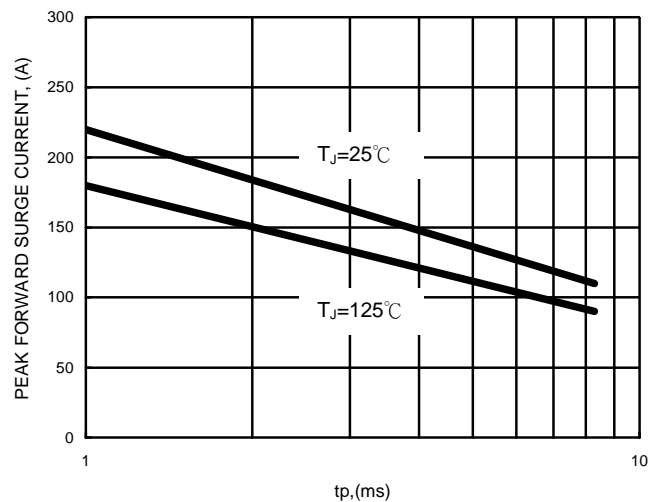
**FIG.4- TYPICAL FORWARD CHARACTERISTICS**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



**FIG.6- NON-REPETITIVE SURGE CURRENT**



## **Important Notice and Disclaimer**

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.