LITE-ON SEMICONDUCTOR

MURS460C

SURFACE MOUNT SUPER FAST RECTIFIERS

REVERSE VOLTAGE – 600 Volts FORWARD CURRENT – 4.0 Amperes

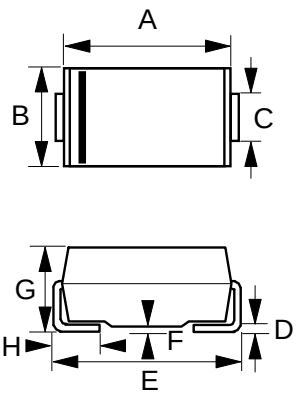
FEATURES

- 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℃ ambient temperature unless otherwis e 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℃	$I_{(AV)}$	4.0	A
Peak forward surge single half sine-wave	@ tp= 8.3ms @ tp= 1ms	I_{FSM}	110 220	A
Single pulse avalanche energy	@ L=15mH	E_{AS}	10.8	mJ
Operation junction and storage temperature range		T_J, T_{STG}	-55 to +150	℃

STATIC ELECTRICAL CHARACTERISTICS

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

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note2,3)	$Rthj_C$ $Rthj_L$ $Rthj_A$	7 15 40	℃/W

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	MAX	UNIT
Reverse recovery time	I_F= 0.5A, Irr= 0.25A, I_R =1.0A	T_J=25℃	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^2 80mm x 80mm copper pad

REV. 2, Jul.-2016, KSGC08

RATING AND CHARACTERISTIC CURVES
MURS460C

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FIG.1- FORWARD CURRENT DERATING CURVE

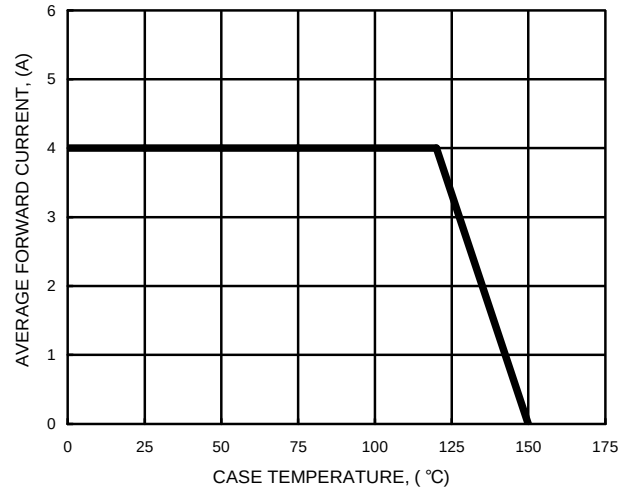


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

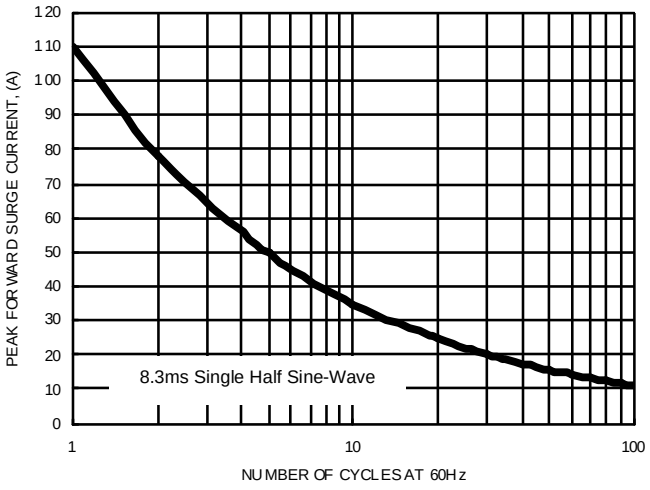


FIG.3- TYPICAL JUNCTION CAPACITANCE

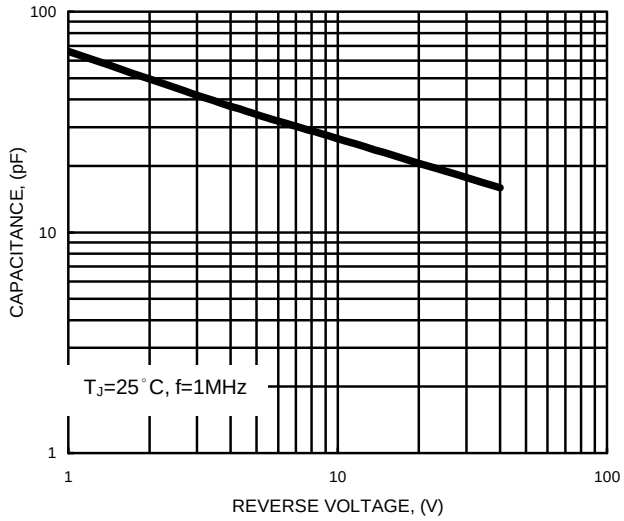


FIG.4- TYPICAL FORWARD CHARACTERISTICS

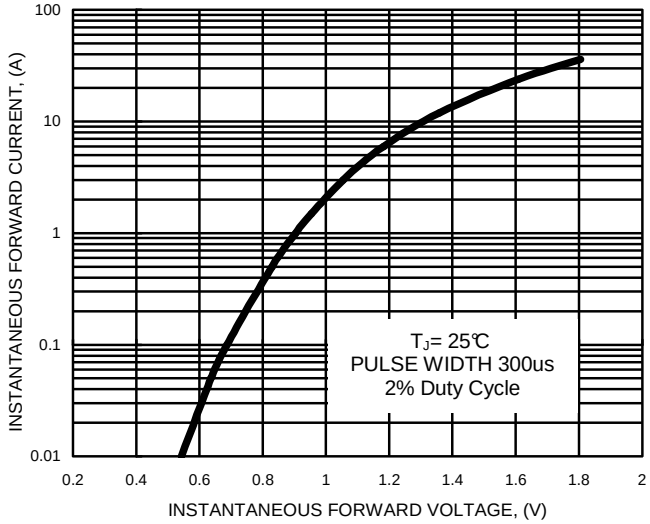


FIG.5- TYPICAL REVERSE CHARACTERISTICS

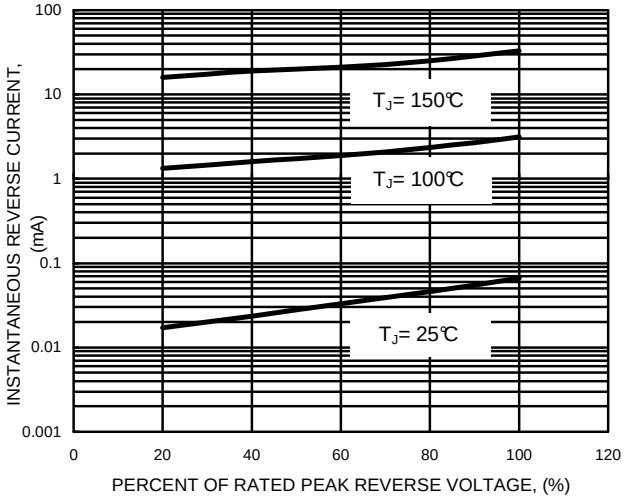
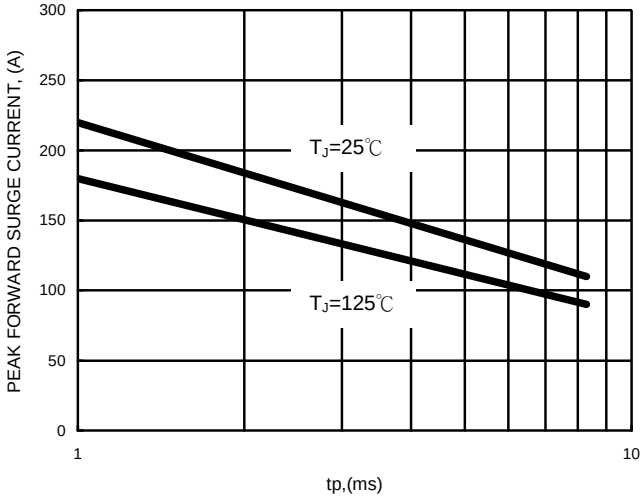


FIG.6- NON-REPETITIVE SURGE CURRENT



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