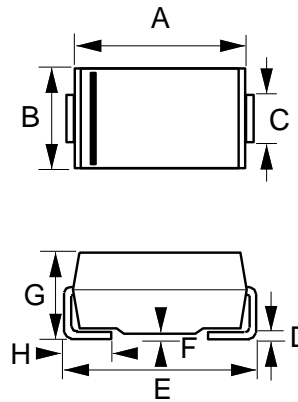


**SURFACE MOUNT
SUPER FAST RECTIFIERS**
**REVERSE VOLTAGE – 600 Volts
FORWARD CURRENT – 4.0 Amperes**
FEATURES

- 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
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: 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	@ $T_C=120^\circ\text{C}$	4.0	A
Peak forward surge single half sine-wave	@ $t_p=8.3\text{ms}$ @ $t_p=1\text{ms}$	110 220	A
Single pulse avalanche energy	@ $L=15\text{mH}$	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 (Note4)		C_J	40	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note5,6)	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 : REV. 3, Oct.-2021, KSGC08

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
5. Thermal resistance junction to lead.
6. Unit mounted on glass epoxy substrate 1oz/ft² 80mm x 80mm copper pad.

RATING AND CHARACTERISTIC CURVES

MURS460C

FIG.1- FORWARD CURRENT DERATING CURVE

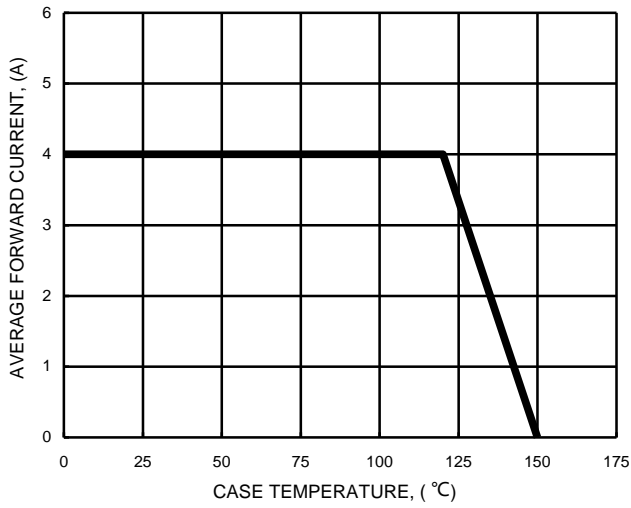


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

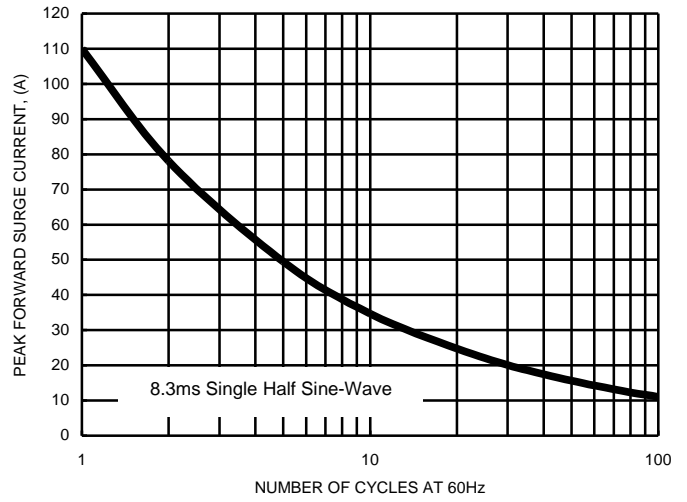


FIG.3- TYPICAL JUNCTION CAPACITANCE

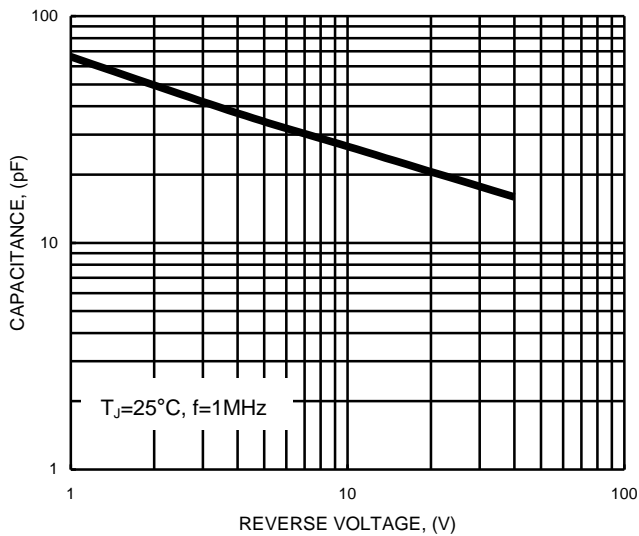


FIG.4- TYPICAL FORWARD CHARACTERISTICS

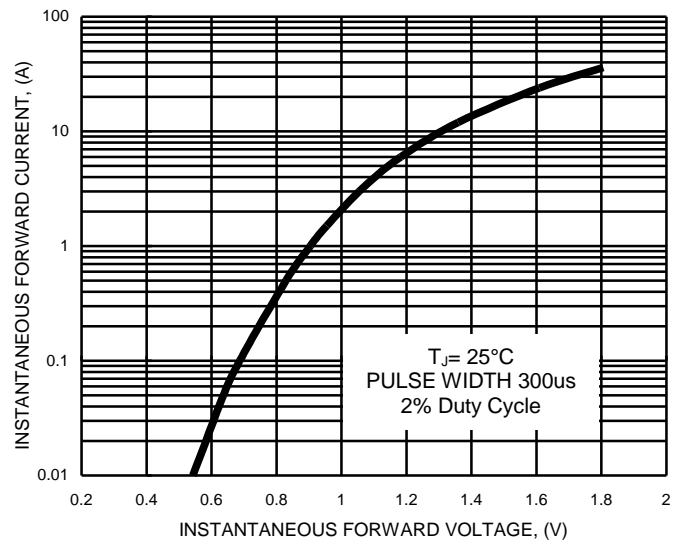


FIG.5- TYPICAL REVERSE CHARACTERISTICS

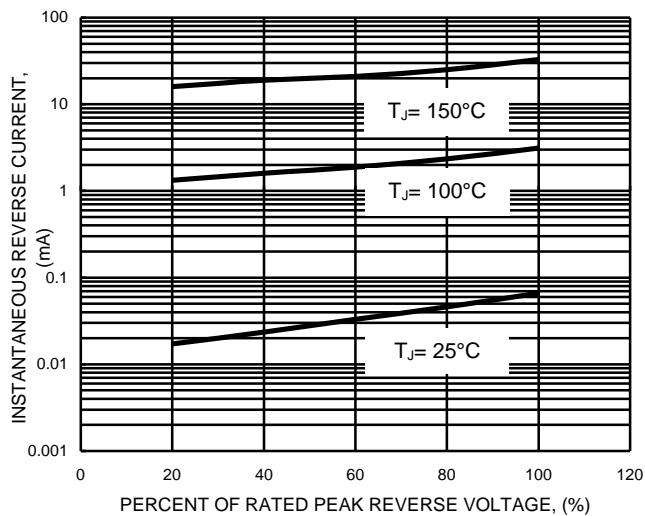
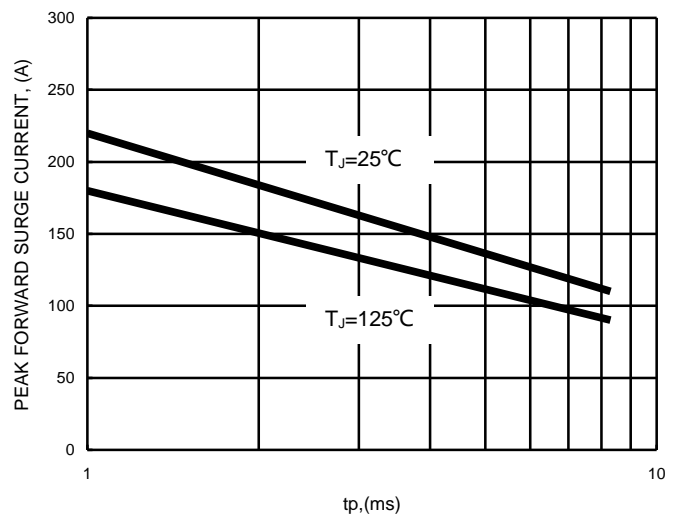


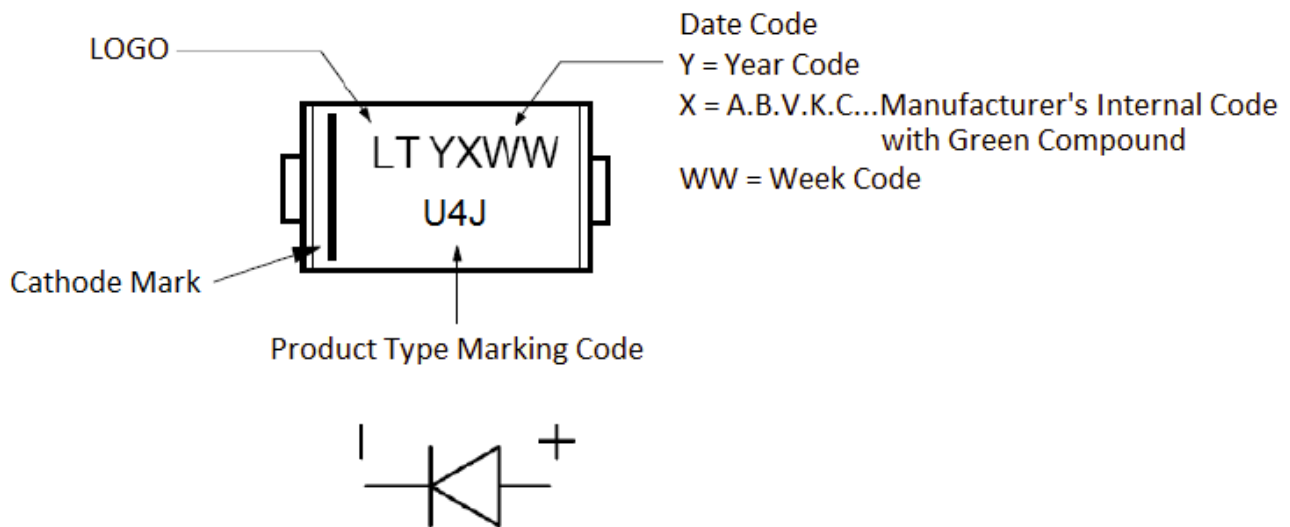
FIG.6- NON-REPETITIVE SURGE CURRENT



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
MURS460C	SMC	3000	Tape & Reel

Marking Information :



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