MURS120(LS)

SURFACE MOUNT SUPER FAST RECTIFIERS

REVERSE VOLTAGE – 200 Volts
FORWARD CURRENT – 1.0 Amperes

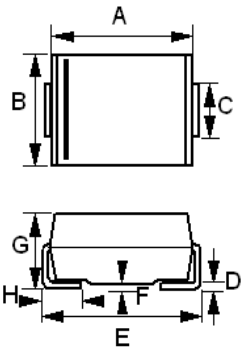
FEATURES

- 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
- Qualified according to AEC-Q101 Rev_C
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package: Molded plastic
- Package Material: Molding compound, UL Flammability classification 94V-0, "Halogen-free".
- Polarity: Color band denotes cathode
- Weight:0.003 ounces, 0.093 grams (Approximate)
- Marking : U1DB

SMB



SMB		
DIM.	MIN.	MAX.
A	4.06	4.57
B	3.30	3.94
C	1.96	2.21
D	0.15	0.31
E	5.21	5.59
F	0.05	0.20
G	2.01	2.50
H	0.76	1.52
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	MURS120	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	V
Maximum RMS Voltage	V_{RMS}	140	V
Maximum DC Blocking Voltage	VDC	200	V
Maximum Average Forward Rectified Current @TL=135°C	$I_{(AV)}$	1.0	A
Peak Forward Surge 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	I_{FSM}	40	A
Maximum forward Voltage at 1.0A DC	V_F	0.875	V
Maximum DC Reverse Current @Tj=25°C at Rated DC Blocking Voltage @Tj=150°C	I_R	2.0 50	uA
Maximum Reverse Recovery Time (Note 4)	T_{RR}	25	ns
Typical Junction Capacitance Note 5)	C_J	27	pF
Typical Thermal Resistance (Note 6)	$R_{\Theta JL}$	15	°C/W
Operating Temperature Range	T_J	-55 to +175	°C
Storage Temperature Range	T_{STG}	-55 to +175	°C

Note:
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. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Thermal Resistance junction to Lead.

RATING AND CHARACTERISTIC CURVES
MURS120

FIG.1 - FORWARD CURRENT DERATING CURVE

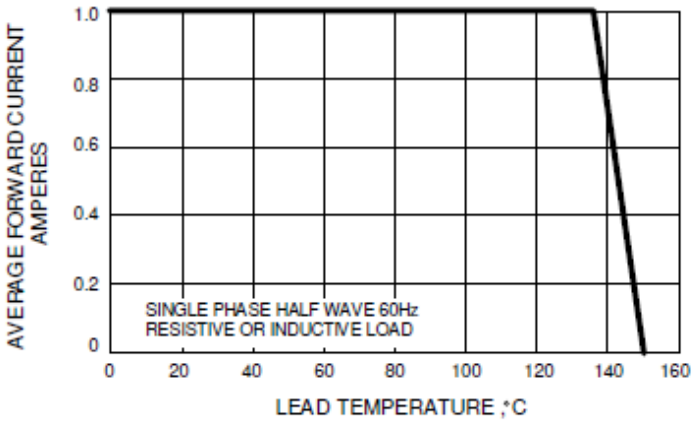


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

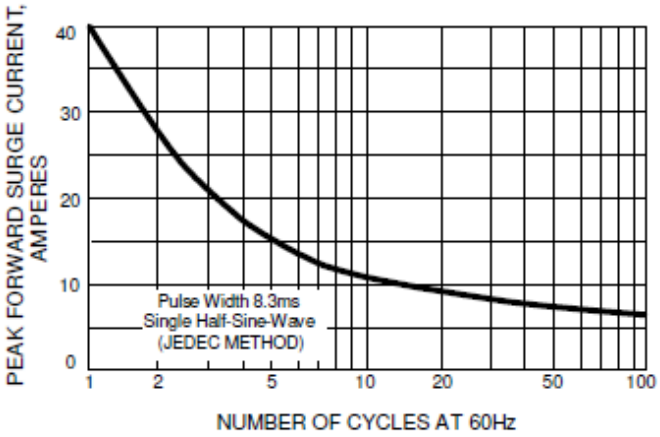


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

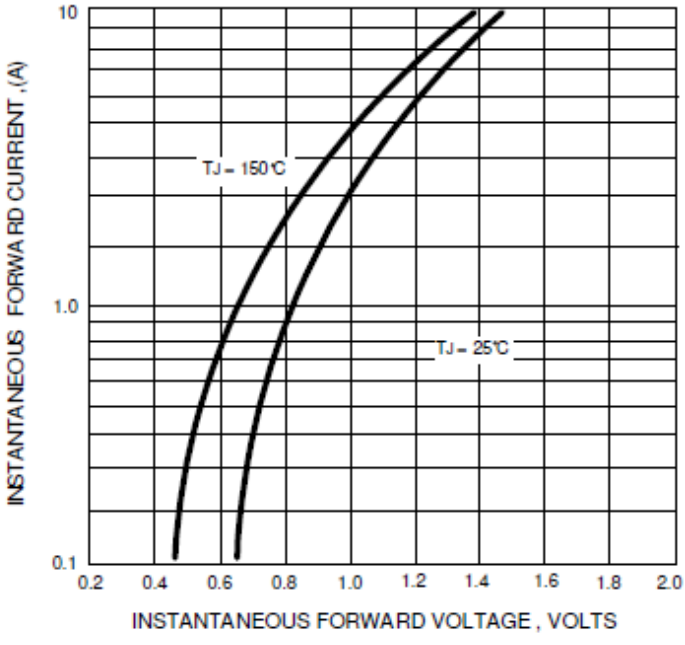
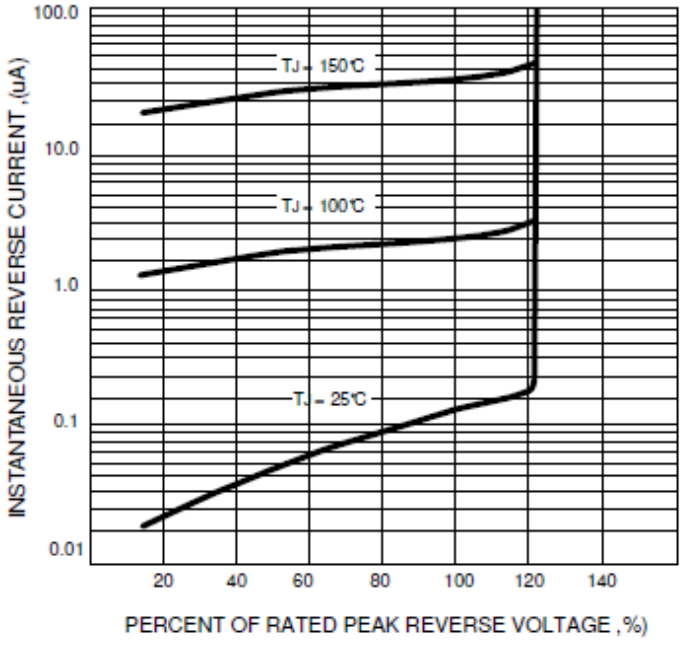


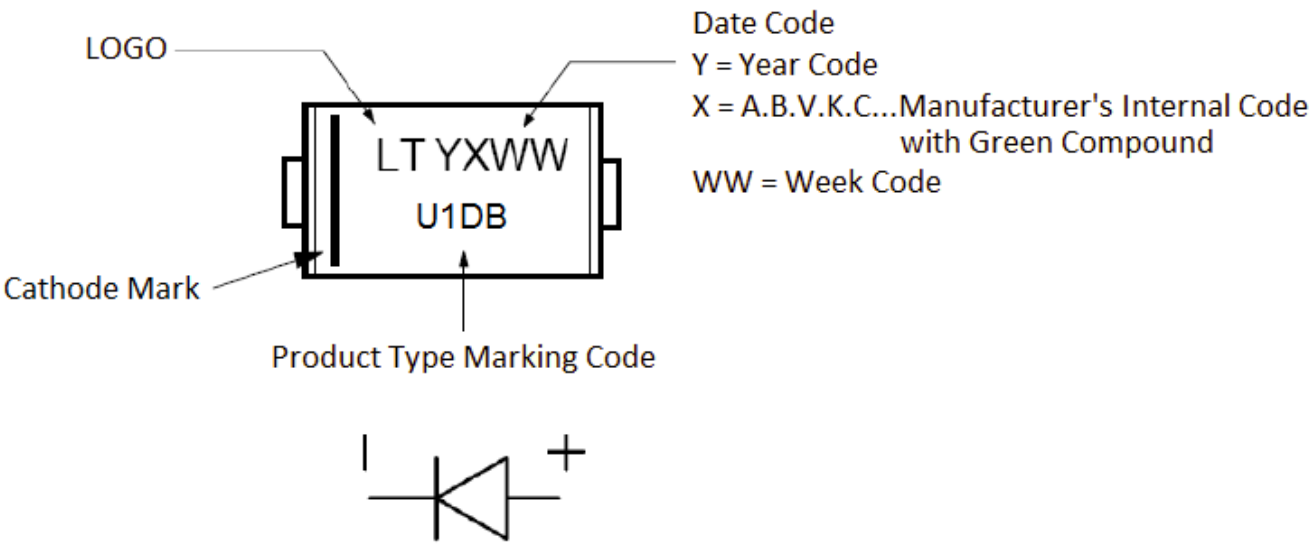
FIG.4 - TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
MURS120	SMB	3000	Tape & Reel

Marking Information :



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