



# MUR30120L

## Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

## Mechanical Data

**Package:** TO-220AC

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant

**Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

**Polarity:** As marked

## Maximum Ratings (Tj=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR30120L ○
Repetitive Peak Reverse Voltage	$V_{RRM}$	V	1200
Average Rectified Output Current @60Hz half sine-wave, R-load, Tc(FIG.1)	$I_o$	A	30
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Tj=25	$I_{FSM}$	A	210
Current Squared Time @1ms t 8.3ms Tj=25	$I^2t$	A <sup>2</sup> s.	183
Single Pulse Avalanche Energy @ Tp=40us, Tj=25°C, L=15mH	$E_{AS}$	mJ	2.7
Storage Temperature	Tstg		-55 ~ +175
Junction Temperature	Tj		-55 ~ +175
Humidity (WU % > 100) b Wh ] c b WU d U W] h U b WY ④ (^ J ž % A < n d : ④			- +



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## Electrical Characteristics $T_j=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max	
instantaneous forward voltage drop per diode	$V_{FM}$	V	$I_{FM}=30.0A$ $T_j=25$	-	2.8	3.3	
			$I_{FM}=30.0A$ $T_j=125$	-	2.1	2.8	
DC reverse current at rated DC blocking voltage per diode	$I_{RRM1}$	uA	$V_{RM}=V_{RRM}$ $T_j=25$	-	-	5.0	
	$I_{RRM2}$		$V_{RM}=V_{RRM}$ $T_j=125$	-	-	200	
Reverse Recovery Time	$T_{rr}$	ns	$I_F=0.5A$ $I_{RM}=1A$ $I_{RR}=0.25A$ $T_j=25$	-	38	70	
			$T_j=25$	-	185	-	
			$T_j=125$	-	272	-	
Peak recovery current	$I_{RRM}$	A	$T_j=25$	$I_F=30A$ $di/dt=-200A/us$ $V_{RM}=400V$	-	5.4	-
			$T_j=125$		-	12.6	-
Reverse recovery charge	$Q_{rr}$	nC	$T_j=25$		-	509	-
			$T_j=125$		-	1722	-

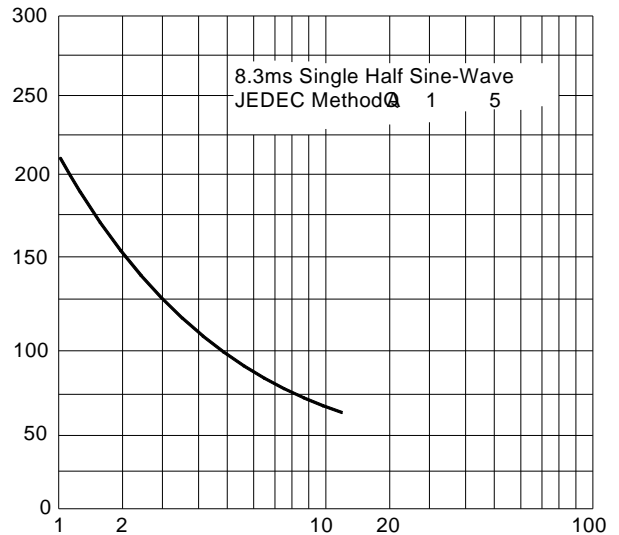
## Thermal Characteristics $T_j=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	MUR30120L
Thermal Resistance Between junction and case	$R_{j-c}$	/W	0.98

## Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR30120L	Approximate 1.8	50	1000	5000	Tube

## Characteristics (Typical)

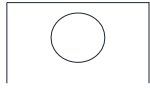


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Outline Dimensions





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