

### Typical Applications

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

### Mechanical Data

**Package:** TO-247AC

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 (T<sub>j</sub>=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MURL3060P
Device marking code			MURL3060P
Repetitive Peak Reverse Voltage	VRRM	V	600
Average Rectified Output Current @60Hz sine wave, R-load, T <sub>c</sub> (FIG.1)	I <sub>O</sub>	A	30
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T <sub>j</sub> =25	I <sub>FSM</sub>	A	300
Current Squared Time @1ms t 8.3ms T <sub>j</sub> =25	I <sup>2</sup> t	A <sup>2</sup> s	373
Storage Temperature	T <sub>stg</sub>		-55 ~ +175
Junction Temperature	T <sub>j</sub>		-55 ~ +175
Typical Junction capacitance @4V,1MHz	C <sub>j</sub>	pF	197



# MURL3060P

## Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Instantaneous forward voltage drop per diode	$V_{FM}$	V	$I_{FM}=30.0A @ T_j=25$	-	1.25	1.80
			$I_{FM}=30.0A @ T_j=125$		1.11	1.50
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	$I_F=0.5A I_{RM}=1A$ $I_{RR}=0.25A T_j=25$	-	40	75
			$T_j=25$	-	100	-
			$T_j=125$	-	175	-
Peak recovery current	$I_{RRM}$	A	$T_j=25$	-	7.50	-
			$T_j=125$	$I_F=30A$ $di/dt=-200A/us$ $V_{RM}=400V$	-	16.76
Reverse recovery charge	$Q_{rr}$	nC	$T_j=25$	-	375	-
			$T_j=125$	-	1450	-

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

PARAMETER	SYMBOL	UNIT	MURL3060P	
Thermal Resistance	Between junction and case	R J-C	$\text{mW}$	1.0
	Between junction and Air	R J-A	$\text{mW}$	50

## Characteristics(Typical)

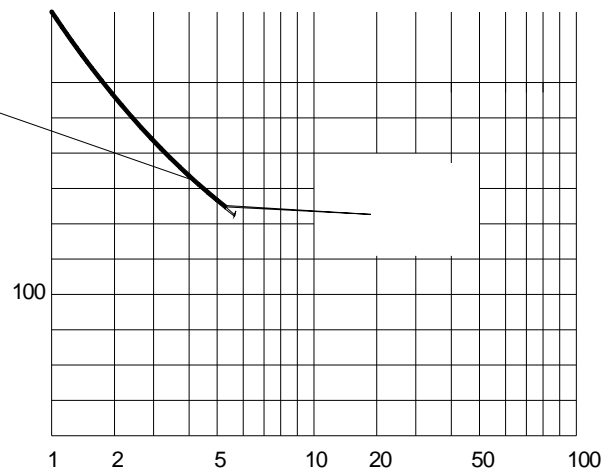
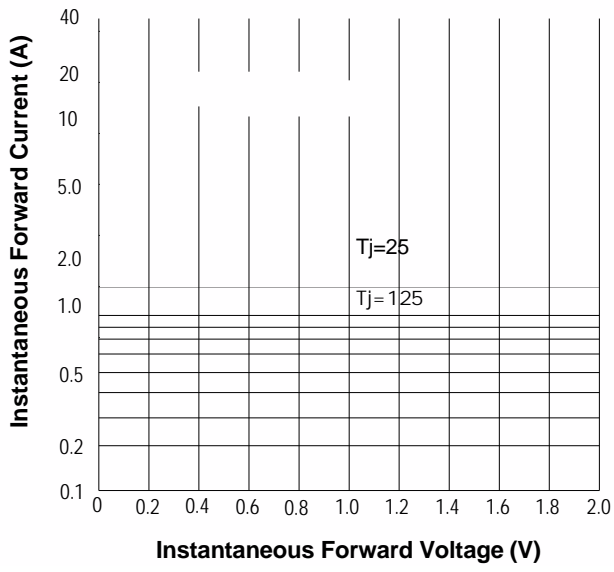


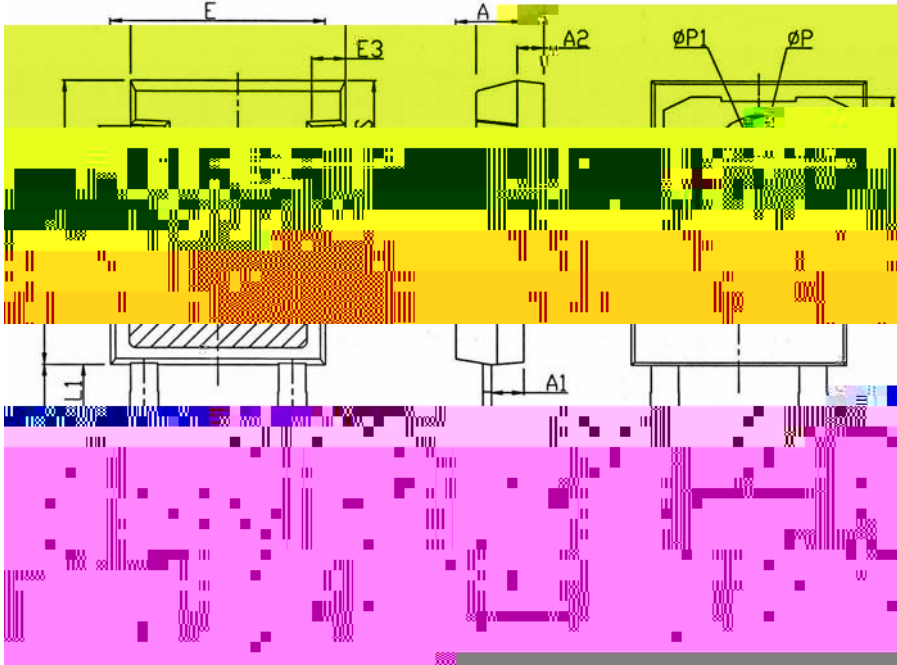


FIG3: Forward Voltage





## Outline Dimensions



TO247-AC		
Dim	Min	Max
A	4.80	5.20
A1	2.21	2.61
A2	1.85	2.15
b	1.11	1.36
b2	1.91	2.21
c	0.51	0.75
D	20.70	21.30
D1	16.25	16.85
E	15.50	16.10
E1	13.00	13.60
E2	4.80	5.20
E3	2.30	2.70
e	10.88 TYP	
L	19.62	20.22
L1	-	4.30
P	3.40	3.80
P1	-	7.30
S	6.15 TYP	



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