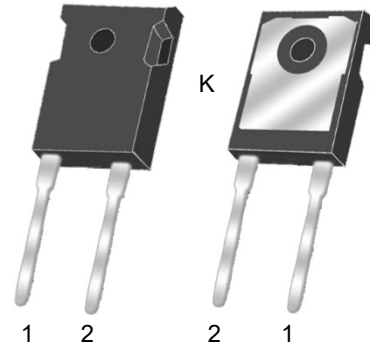
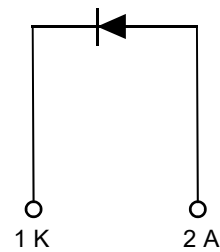


**Feature**

- 1200-Volt Schottky Rectifier
- Zero Reverse Recovery
- Positive Temperature Coefficient on  $V_F$
- Temperature-Independent Switching Behavior
- Extremely Fast Switching


**TO-247-2L**
**Applications**

- SMPS、Power Factor Correction
- Solar inverters
- Uninterruptable power supplies
- Motor drives


**Circuit Diagram**
**Absolute maximum rating@25°C**

Parameter		Symbol	Value	Units
Repetitive Peak Reverse Voltage		$V_{RRM}$	1200	V
Continuous Forward Current	$T_c=25^\circ\text{C}$	$I_F$	49	A
	$T_c=150^\circ\text{C}$		20	
Repetitive Peak Forward Surge Current	$T_c=25^\circ\text{C}, t_p=10\text{ms}, \text{Half Sine Wave}$	$I_{FRM}$	80	A
Non-repetitive Forward Surge Current	$T_c=25^\circ\text{C}, t_p=10\text{ms}, \text{Half Sine Wave}$	$I_{FSM}$	120	A
Operating Junction Range		$T_J$	-55~+175	°C
Single Pulse Avalanche Energy		$E_{AS}$	94	mJ

## Electrical characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Forward Voltage	$V_F$	$I_F = 20A, T_J = 25^\circ C$	-	1.42	1.7	V
		$I_F = 20A, T_J = 175^\circ C$	-	1.94	3.0	
Reverse Current	$I_R$	$V_R = 1200V, T_J = 25^\circ C$	-	5.0	50	$\mu A$
		$V_R = 1200V, T_J = 175^\circ C$	-	20	-	
Total Capacitive Charge	$Q_C$	$V_R = 800V$	-	114	-	nC
Total Capacitance	C	$V_R = 1V, f = 1MHz$	-	1300	-	pF
		$V_R = 400V, f = 1MHz$	-	103	-	
		$V_R = 800V, f = 1MHz$	-	85	-	

## Thermal Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Units
Thermal Resistance (Junction to Case)	$R_{\theta JC}$	-	0.5	0.65	$^\circ C/W$

## Typical Characteristics

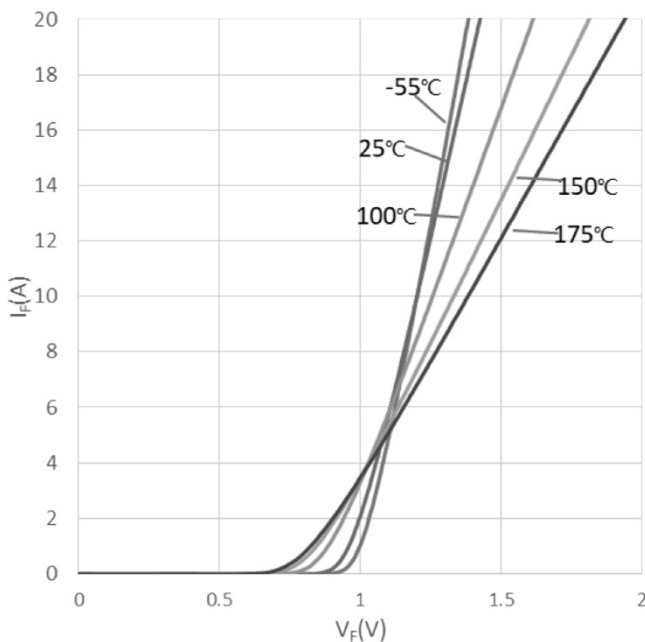


Fig.1 Forward Characteristics

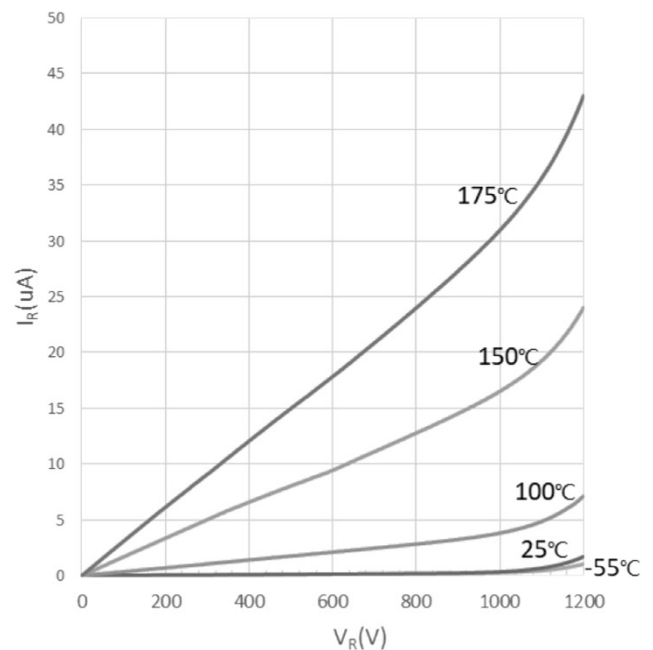


Fig.2 Reverse Characteristics

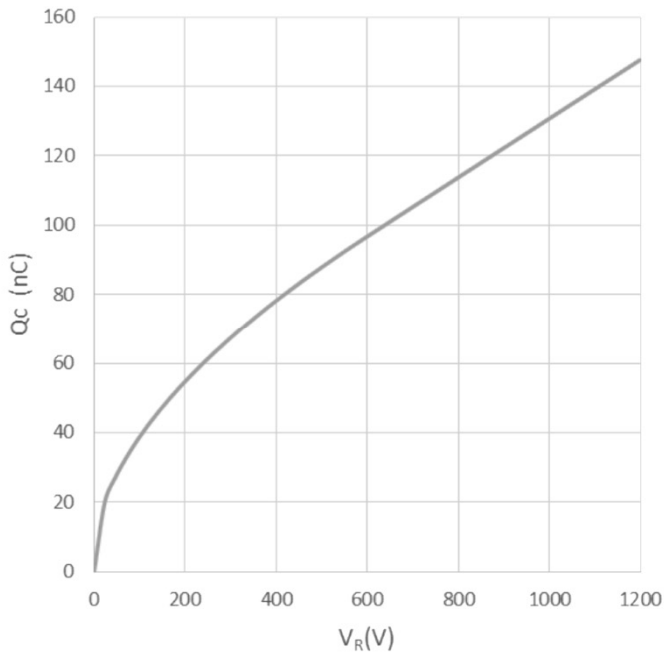


Fig.3 Capacitance Charge vs. Reverse Voltage

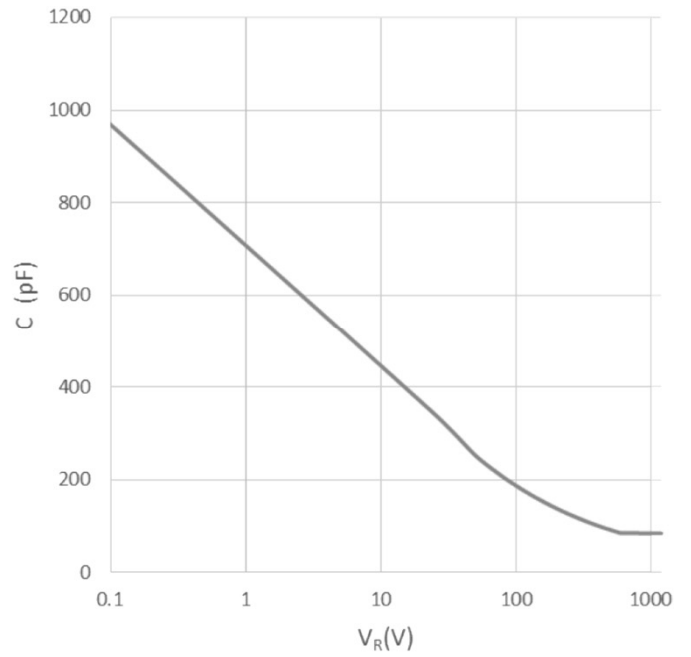


Fig.4 Capacitance vs. Reverse Voltage

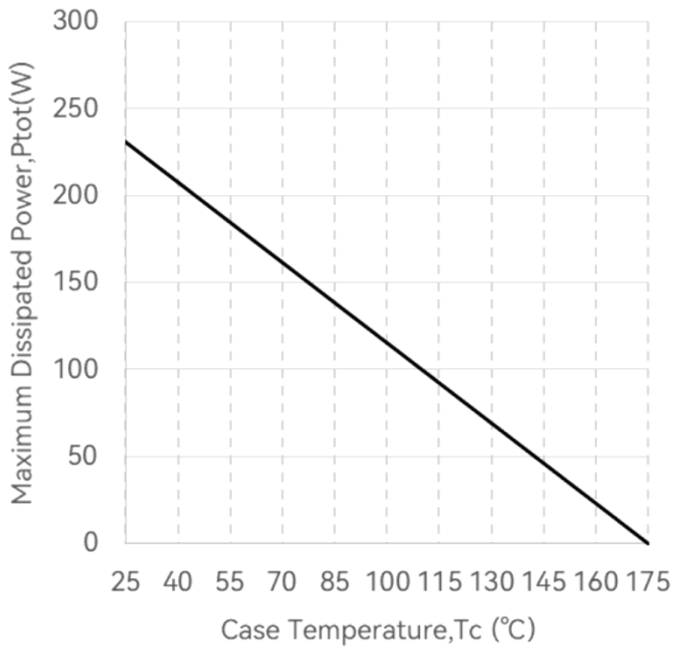
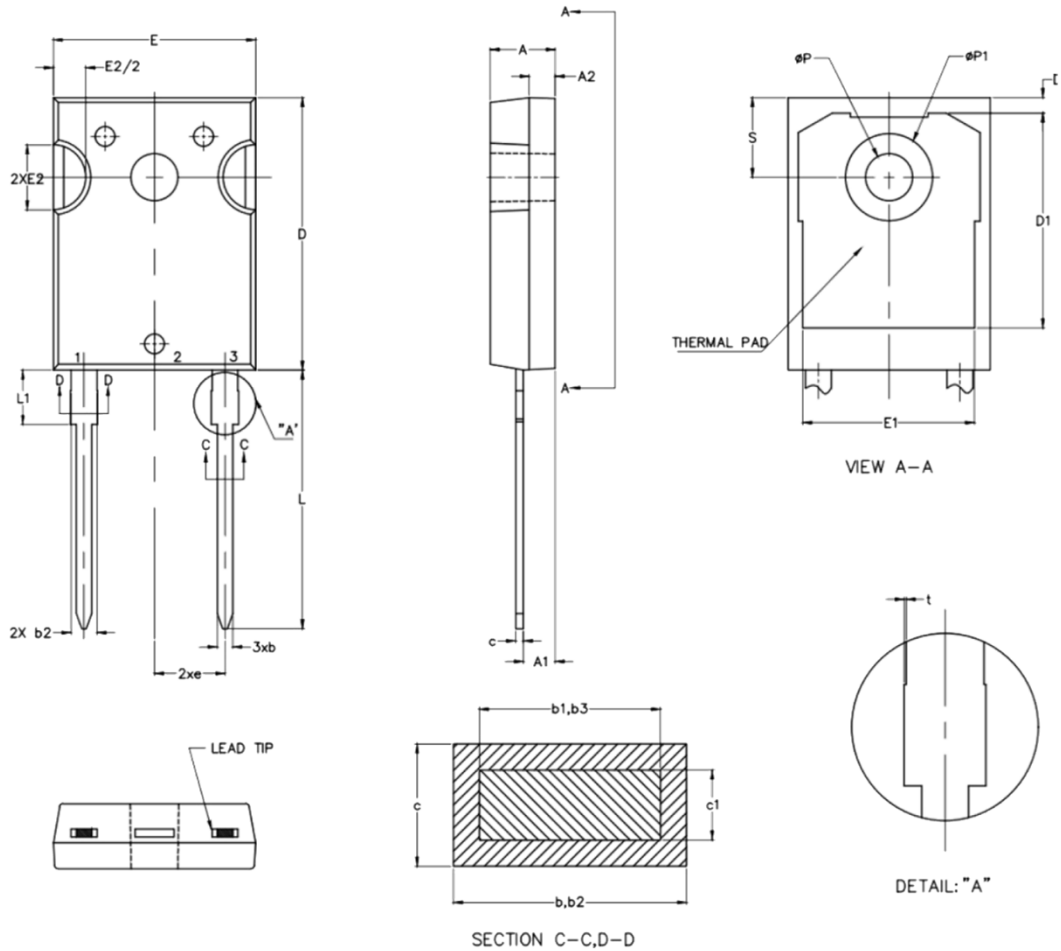



Fig.5 Power dissipation as function of case temperature

## Product Dimension (TO-247-2L)



Dim	Millimeters		Inches		Dim	Millimeters		Inches	
	Min	Max	Min	Max		Min	Max	Min	Max
A	4.90	5.10	0.193	0.201	D2	1.05	1.35	0.041	0.053
A1	2.31	2.51	0.091	0.099	E	15.75	15.90	0.620	0.626
A2	1.90	2.10	0.075	0.083	E1	13.26	-	0.522	-
b	1.16	1.26	0.046	0.050	E2	4.90	5.10	0.193	0.201
b1	1.15	1.22	0.045	0.048	e	5.44 BSC.		0.214 BSC.	
b2	1.96	2.06	0.077	0.081	L	19.80	20.10	0.780	0.791
b3	1.95	2.02	0.077	0.080	L1	-	4.30	-	0.169
c	0.59	0.66	0.023	0.026	$\phi P$	3.50	3.70	0.138	0.146
c1	20.90	21.10	0.823	0.831	$\phi P1$	-	7.40	-	0.291
D	20.90	21.10	0.823	0.831	S	6.05	6.25	0.238	0.246
D1	16.25	16.85	0.640	0.663	t	0.00	0.15	0.000	0.006


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