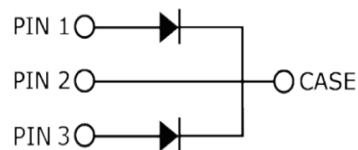


TO-247-3

(1)(2)(3)



Maximum Ratings ($T_c = 25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter	Value	Unit	Test Conditions	Note
V_{RRM}	Repetitive Peak Reverse Voltage	650	V		
V_{RSM}	Surge Peak Reverse Voltage	650	V		
V_{DC}	DC Blocking Voltage	650	V		
I_F	Continuous Forward Current (Per Leg/ Per Device)	15/30	A	$T_c = 150^\circ\text{C}$	Fig. 7
I_{FRM}	Repetitive Peak Forward Surge Current	105*	A	$T_c = 25^\circ\text{C}$, $t_p = 10$ ms, Half Sine Wave	
I_{FSM}	Non-Repetitive Peak Forward Surge Current	135*	A	$T_c = 25^\circ\text{C}$, $t_p = 10$ ms, Half Sine Wave	
$I_{F,Max}$	Non-Repetitive Peak Forward Surge Current	1200*	A	$T_c = 25^\circ\text{C}$, $t_p = 10$ μs , Pulse	
P_{tot}	Power Dissipation (Per Leg/ Per Device)	159* 68*	W	$T_c = 25^\circ\text{C}$ $T_c = 110^\circ\text{C}$	Fig. 6
T_J, T_{stg}	Operating Junction and Storage Temperature	-55 to +175	$^\circ\text{C}$		

*Per Leg,

Electrical Characteristics (Per Leg)

Symbol	Parameter	Typ.	Max.	Unit	Test Conditions	Note
V_F	Forward Voltage	1.45 1.75	1.8 3.0	V	$I_F = 15$ A $T_J = 25^\circ\text{C}$ $I_F = 15$ A $T_J = 175^\circ\text{C}$	Fig. 1
I_R	Reverse Current	4 40	20 200	μA	$V_R = 650$ V $T_J = 25^\circ\text{C}$ $V_R = 650$ V $T_J = 175^\circ\text{C}$	Fig. 2
Q_C	Total Capacitive Charge	41		nC	$V_R = 400$ V, $T_J = 25^\circ\text{C}$ $Q_C = \int_0^{V_R} C(V) dV$	Fig. 4
C	Total Capacitance	860 85 60		pF	$V_R = 0$ V, $T_J = 25^\circ\text{C}$, $f = 1$ MHz $V_R = 200$ V, $T_J = 25^\circ\text{C}$, $f = 1$ MHz $V_R = 400$ V, $T_J = 25^\circ\text{C}$, $f = 1$ MHz	Fig. 3
E_C	Capacitance Stored Energy	8.2		μJ	$V_R = 400$ V	Fig. 5

Thermal Characteristics (Per Leg)

Symbol	Parameter	Typ.	Unit	Note
$R_{\theta JC}$	Thermal Resistance from Junction to Case	0.94	$^\circ\text{C/W}$	Fig. 8

Typical Performance(Per Leg)

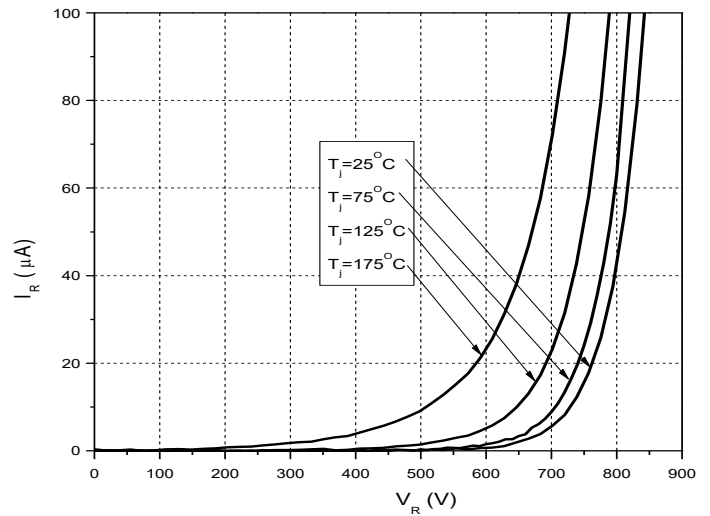
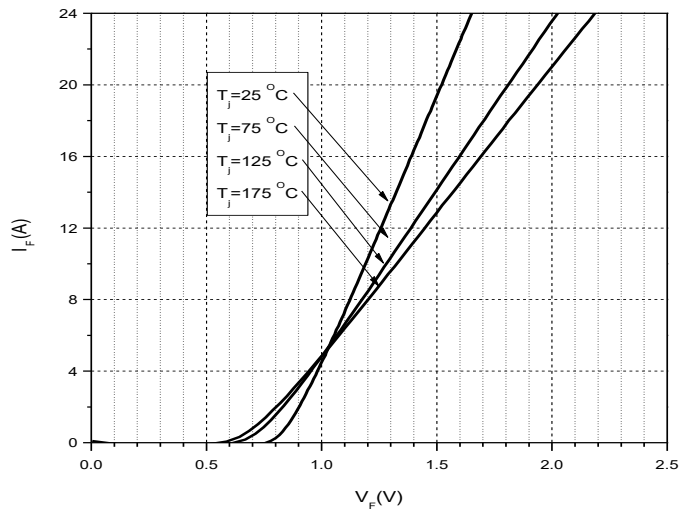


Figure 1. Forward Characteristics Figure 2. Reverse Characteristics

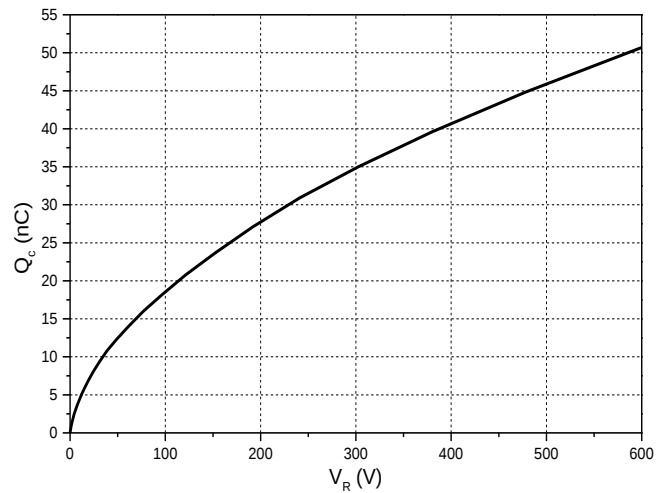
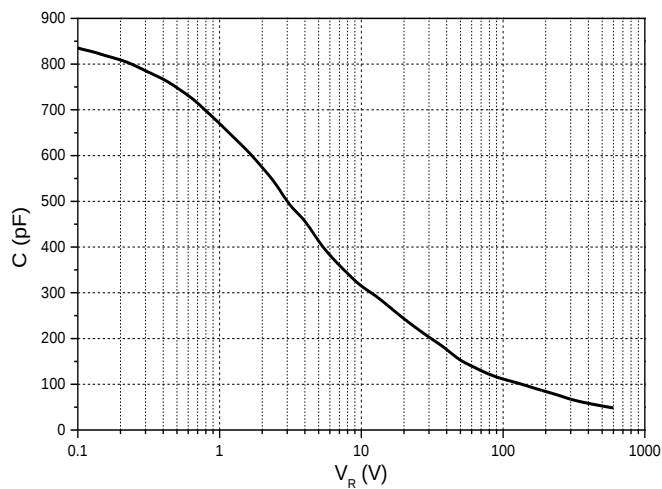


Figure 3. Capacitance vs. Reverse Voltage Figure 4. Total Capacitance Charge vs. Reverse Voltage

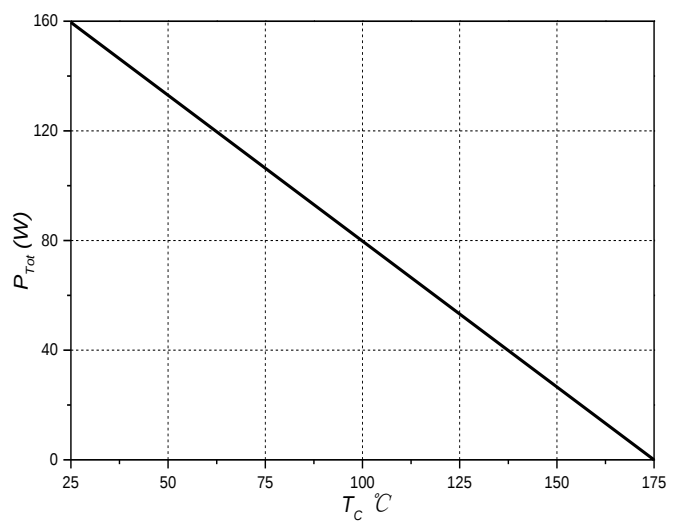
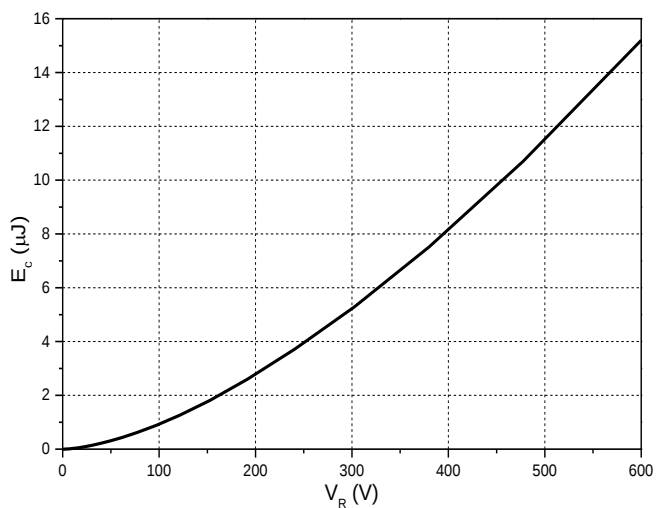


Figure 5. Capacitance Stored Energy Figure 6. Power Derating

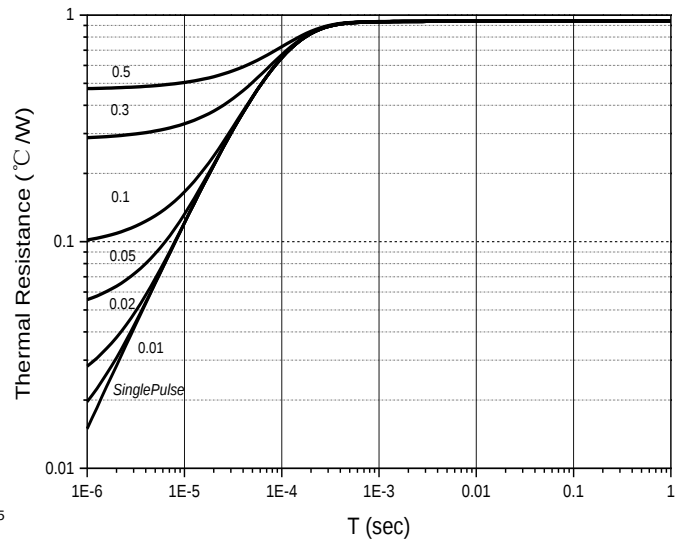
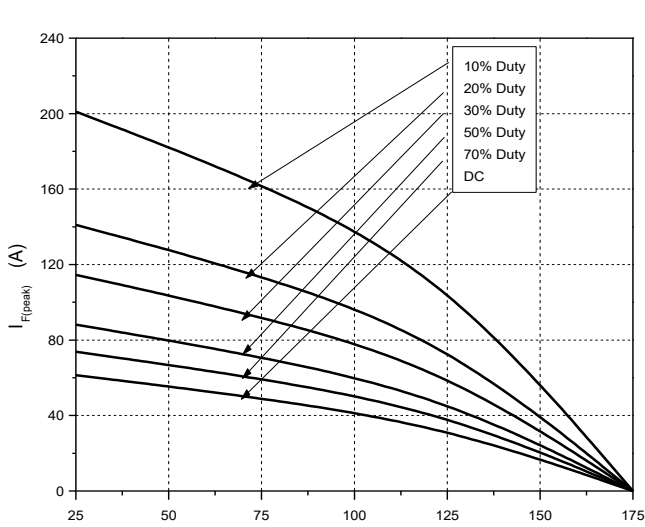
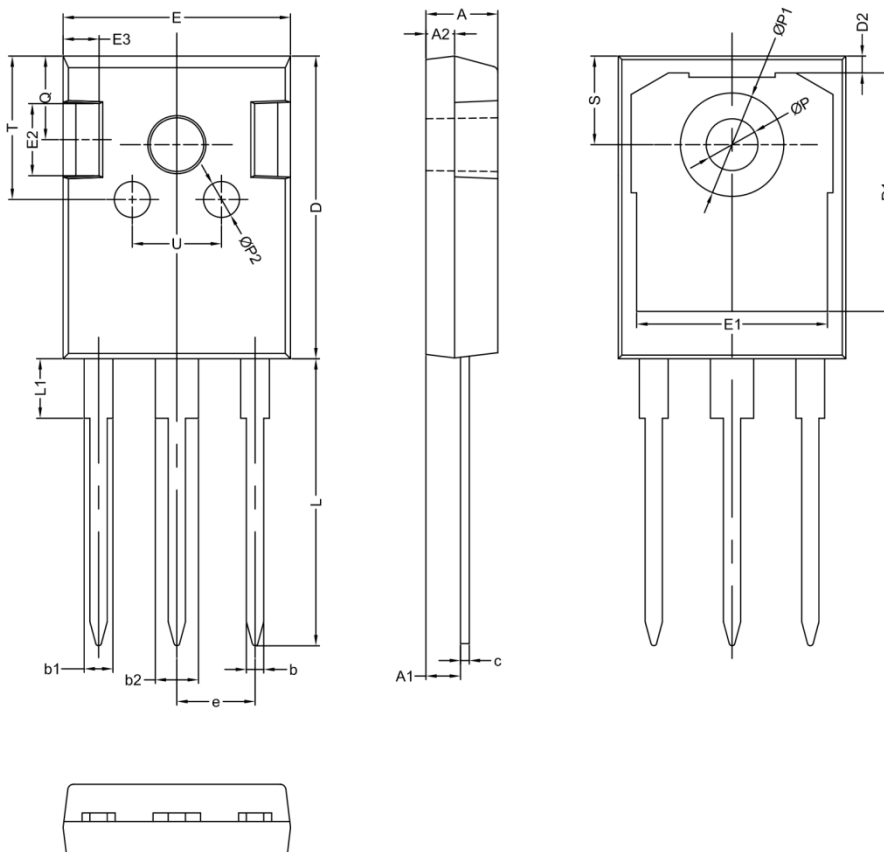


Figure 7. Current DeratingFigure 8. Transient Thermal Impedance

Package Dimensions: TO-247-3L



符号	机械尺寸/mm		
	最小值	典型值	最大值
A	4.80	5.00	5.20
A1	2.21	2.41	2.61
A2	1.90	2.00	2.10
b	1.10	1.20	1.35
b1		2.00	
b2		3.00	
c	0.55	0.60	0.75
D	20.80	21.00	21.20
D1		16.55	
D2		1.20	
E	15.60	15.80	16.0
E1		13.30	
E2		5.00	
E3		2.50	
e		5.44	
L	19.42	19.92	20.42
L1		4.13	
P	3.50	3.60	3.70
P1	-	-	7.40
P2		2.50	
Q		5.80	
S	6.05	6.15	6.25
T		10.00	
U		6.20	