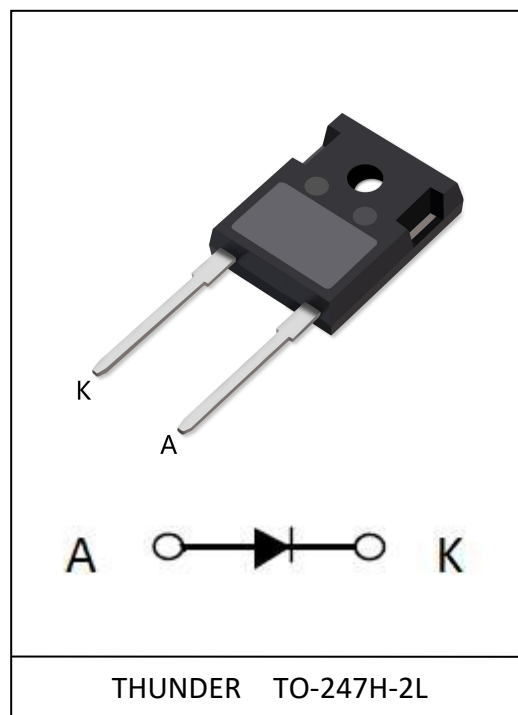


Features

- Low Forward Voltage Drop
- High-Speed Switching
- Positive Temperature Coefficient on V_F
- Temperature-Independent Switching Behavior

V_R	1200 V
I_F	20 A
Q_C	97 nC



Absolute Maximum Ratings ($T_j=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Conditions	Value		Unit
			Min	Typ	
V_{RRM}	Repetitive Peak Reverse Voltage	$T_C=25^\circ\text{C}$	-	1200	V
V_{DC}	DC Blocking Voltage	$I_R=1\text{mA}$, $T_C=25^\circ\text{C}$	1200	1555	V
I_F	Continuous Forward Current	$T_C=25^\circ\text{C}$	-	45	A
		$T_C=125^\circ\text{C}$	-	26	A
		$T_C=145^\circ\text{C}$	-	20	A
I_{FSM}	Non-repetitive Peak Forward Surge Current	$T_C=25^\circ\text{C}$, $t_p=10\text{ms}$, Half Sine Wave (After test : $V_F \geq 0.5\text{V}@I_F=1\text{mA}$; $V_R \geq 900\text{V}@I_R=1\text{mA}$; $I_R \leq 5\text{mA}@V_R=1200\text{V}$)	108	136	A
		$T_C=125^\circ\text{C}$, $t_p=10\text{ms}$, Half Sine Wave (After test : $V_F \geq 0.5\text{V}@I_F=1\text{mA}$; $V_R \geq 900\text{V}@I_R=1\text{mA}$; $I_R \leq 5\text{mA}@V_R=1200\text{V}$)	97	122	A
T_{stg}	Storage Temperature		-55 to 175		$^\circ\text{C}$
T_j	Operating junction temperature range		-55 to 175		$^\circ\text{C}$

Electrical Characteristics

Symbol	Parameter	Conditions	Value			Unit	Note
			Min	Typ	Max		
V _F	Forward Voltage	I _F =20A, T _J =25℃	-	1.40	1.6	V	Fig.1
		I _F =20A, T _J =125℃	-	1.73	-	V	
		I _F =20A, T _J =175℃	-	2.02	-	V	
I _R	Reverse Current	v _R =1200V, T _J =25℃	-	0.79	100	μA	Fig.2
		v _R =1200V, T _J =125℃	-	5.5	-	μA	
		v _R =1200V, T _J =175℃	-	24	-	μA	
Q _c	Total Capacitive Charge	v _R =800V, T _J =25℃	-	97	-	nC	Fig.3
C	Total Capacitance	f=1 MHz, V _R =0V, T _J =25℃	-	1368	-	pF	Fig.4
		f=1 MHz, V _R =400V, T _J =25℃	-	87	-	pF	
		f=1 MHz, V _R =800V, T _J =25℃	-	69	-	pF	
E _c	Capacitance Stored Energy	v _R =800V, T _J =25℃	-	27	-	μJ	

Thermal Characteristics

Symbol	Paramter	Typ	Unit
R _{th(j-c)}	Thermal Resistance , Junction to Case	0.71	℃/W

Electrical Characteristic Curves

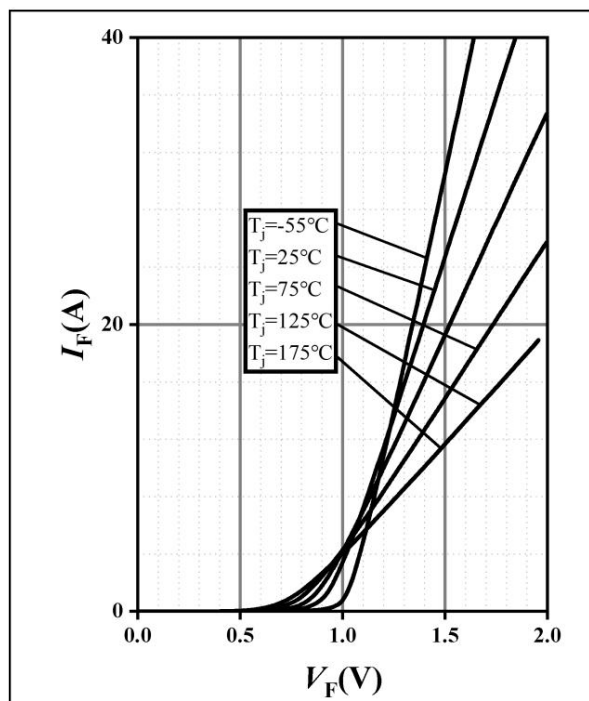


Fig.1 Forward Characteristics

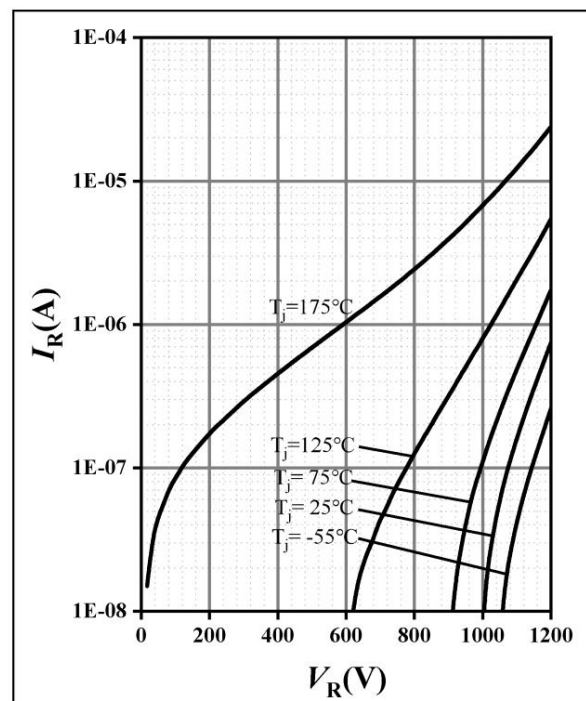


Fig.2 Reverse Characteristics

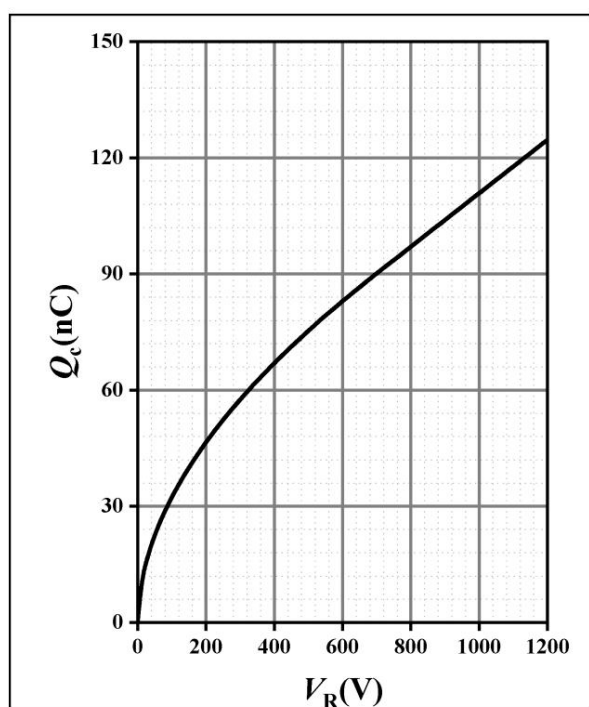


Fig.3 Capacitance Charge vs. Reverse Voltage

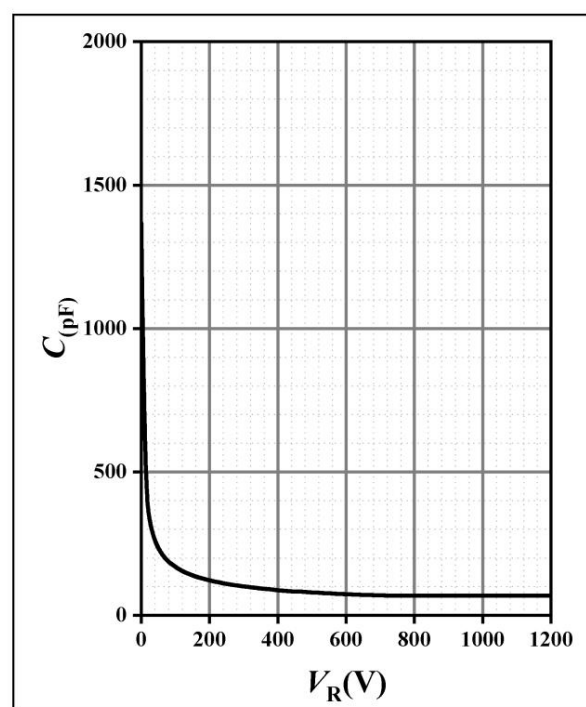
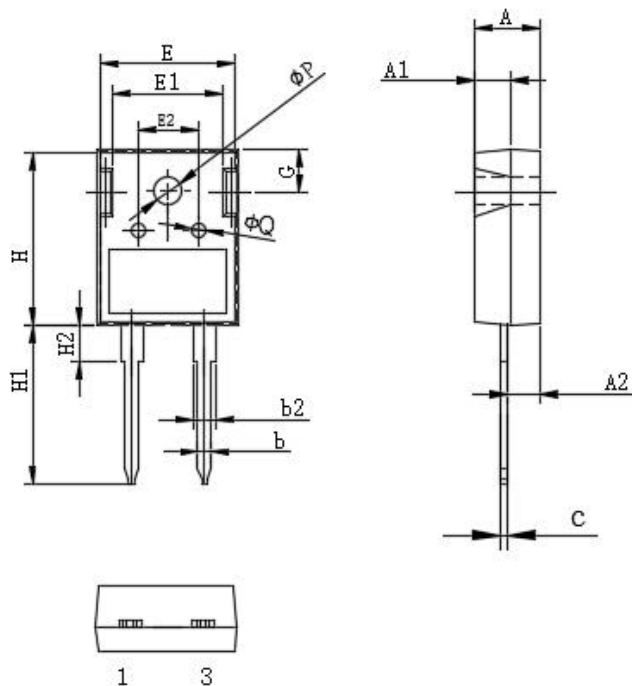


Fig.4 Capacitance vs. Reverse Voltage

Package Information

TO-247H-2L PACKAGE

基本尺寸



Symbol	单位 mm		
	Min	Nom	Max
A	4.80	5.00	5.20
A1	2.80	3.00	3.20
A2	2.20	2.40	2.60
b	1.05	1.20	1.35
b2	1.80	2.00	2.20
c	0.50	0.60	0.70
E	15.6	15.80	16.0
E1	12.3	12.50	12.7
E2	6.00	6.20	6.40
H	20.5	21.0	21.5
H1	19.0	20.0	21.0
H2	3.00	4.00	5.00
G	5.70	5.90	6.10
ΦP	3.30	3.50	3.50
ΦQ	2.30	2.50	2.70

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