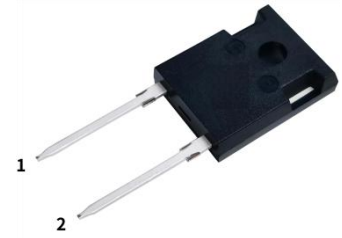
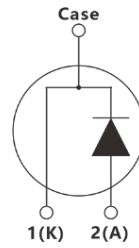


**Silicon Carbide Schottky Diode**

Parameter	Value	Unit
$V_{RRM}$	1200	V
$I_F$	60	A
$Q_C$	306	nC



TO-247-2L

**Features**

- Zero reverse recovery current
- Zero forward recovery voltage
- Temperature independent switching behavior
- High temperature operation
- High frequency operation

**Applications**

- Switched-Mode Power Supply
- Power Factor Correction
- Uninterruptible Power Supply
- Photovoltaic inverters
- Motor drives
- High-power adapters

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	1200	V
Surge Peak Reverse Voltage	$V_{RSM}$	1200	V
Continuous Forward Current $T_C=25^\circ\text{C}$ $T_C=145^\circ\text{C}$	$I_F$	155 60	A
Non-Repetitive Forward Surge Current $T_C = 25^\circ\text{C}, t_p=10\text{ms}, \text{Half Sine Pulse}$	$I_{FSM}$	450	A
Power dissipation $T_C = 25^\circ\text{C}, T_J = 175^\circ\text{C}$	$P_{tot}$	535	W
Operating junction Range	$T_J$	-55 to +175	$^\circ\text{C}$
Storage temperature Range	$T_{stg}$	-55 to +175	$^\circ\text{C}$

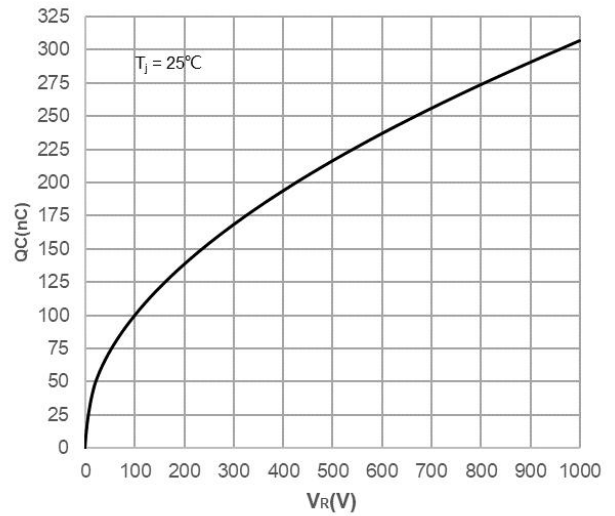
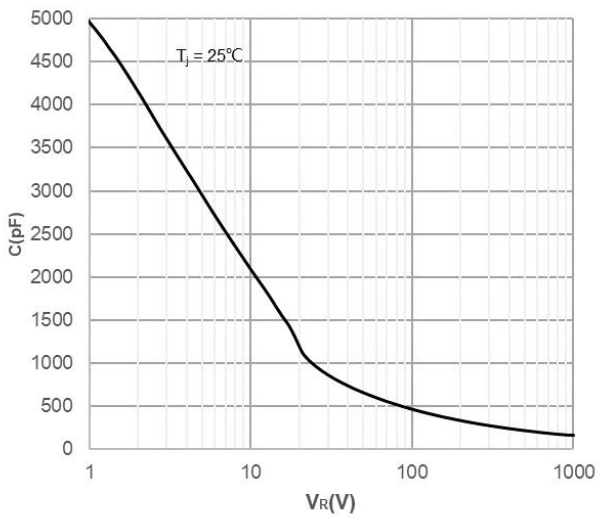
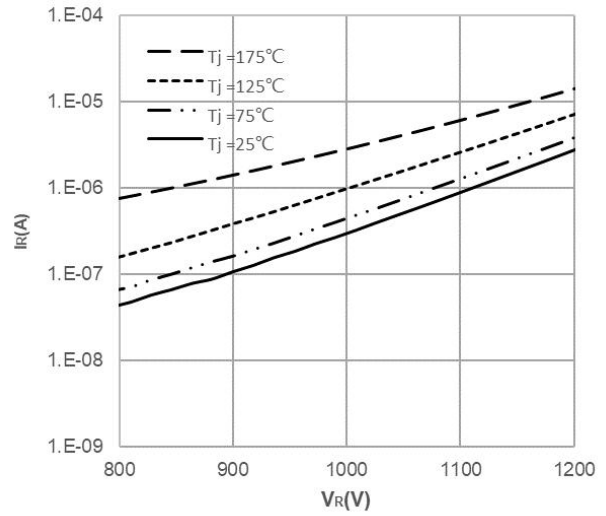
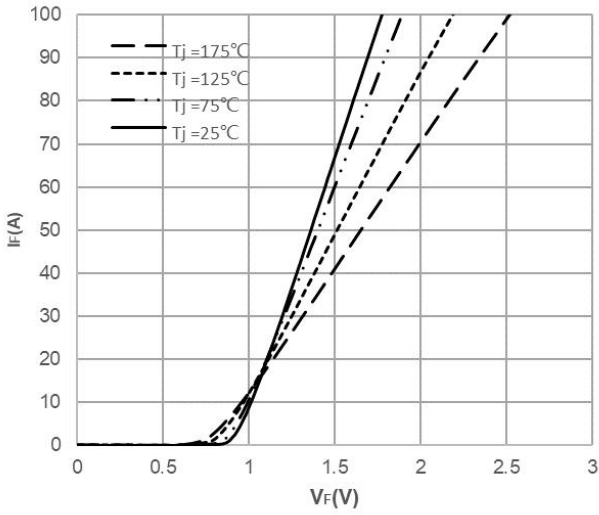
**Thermal Characteristics**

Parameter	Symbol	Typ.	Unit
Thermal resistance, junction – case.	$R_{thJC}$	0.28	$^{\circ}C/W$

**Electrical Characteristics**(at  $T_J=25^{\circ}C$  unless otherwise specified)

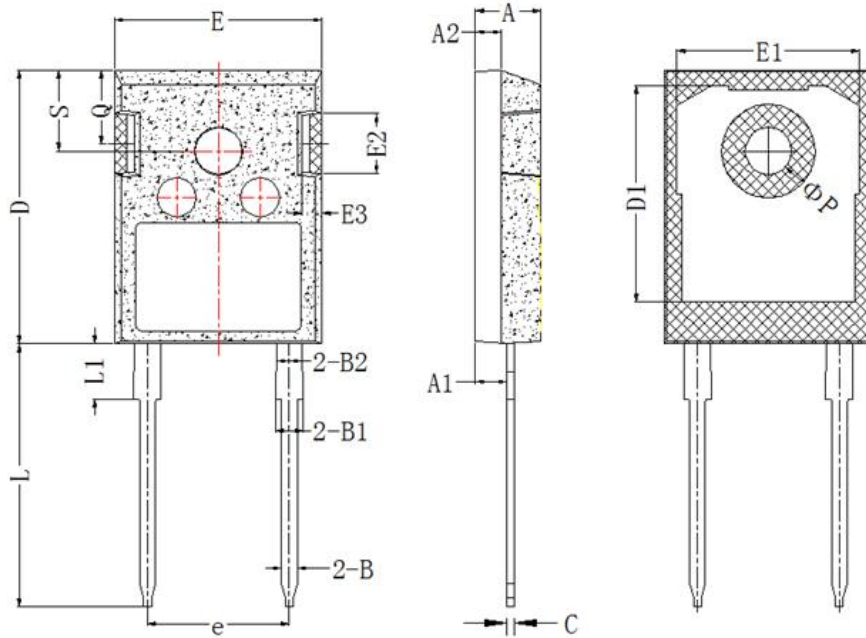
Parameter	Symbol	Test conditions	Value			Unit
			Min.	Typ.	Max.	
DC blocking voltage	$V_{DC}$		1200			V
Diode forward voltage	$V_F$	$I_F=60A, T_J=25^{\circ}C$ $I_F=60A, T_J=175^{\circ}C$		1.45 1.88	1.61	V
Reverse current	$I_R$	$V_R=1200V, T_J=25^{\circ}C$ $V_R=1200V, T_J=175^{\circ}C$			150 400	$\mu A$
Total capacitive charge	$Q_C$	$V_R=1000V, T_J=25^{\circ}C$		306		nC
Total capacitance	C	$T_J=25^{\circ}C$ $V_R=1V, f=1MHz$ $V_R=400V, f=1MHz$ $V_R=800V, f=1MHz$		4960 240 174		pF

**Typical Characteristics**



**Package Outlines(Unit:mm)**

TO-247-2L



Items	Values(mm)	
	MIN	MAX
A	4.85	5.15
A1	2.25	2.55
A2	1.85	2.15
B	1.04	1.33
B1	1.90	2.35
B2	1.90	2.15
C	0.55	0.68
D	20.80	21.10
D1	16.25	17.65
D2	0.95	1.35
E	15.70	16.10
E1	13.50	14.20
E2	3.80	5.00
E3	1.00	2.60
e	10.63	11.13
L	19.80	20.30
L1	4.00	4.50
φP	3.50	3.70
Q	5.40	6.00
S	6.00	6.40

**\*Important Usage Information and Disclaimer**

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