- SiC Schottky Diode
  - Zero reverse recovery
  - Zero forward recovery
  - Temperature independent switching behavior
  - Positive temperature coefficient on V_F
- Low stray inductance
- High junction temperature operation
- All parts tested to greater than 715V

- Outstanding performance at high frequency operation
- Low loss and low EMI noise
- Very rugged and easy mounting
- Internally isolated package (AlN)
- Low junction to case thermal resistance
- Easy paralleling due to positive T_C of V_F
- RoHS compliant

- Switched-mode power supply
- Induction heater
- Welding equipment
- Charging station

		314	
Repetitive peak reverse voltage		650	V
Diancqe rent			
Power dissipation		232	W
Operating junction temperature		-55…175	°C
Storage temperature	$T_{storage}$	-55…150	°C

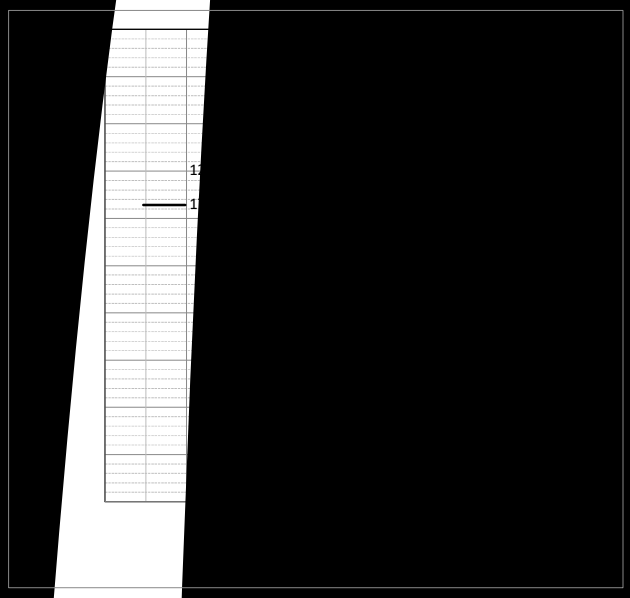
Notes: *Typical Rth_{JC} used
**Limited by testing equipment

Elec s otherwise specified (per leg)

		Values			
		min.	typ.	max.	
		715	-	-	V
Diod			1.45	1.60	V

		Values			Unit
		min.	typ.	max.	
ce, junc		-	0.65	0.81	°C/W
		1.1	-	1.5	N-m
ction tor		-	1.1	1.3	N-m
t		-	32	-	g
e		2500	-	-	V

erforma



. 1 Forward

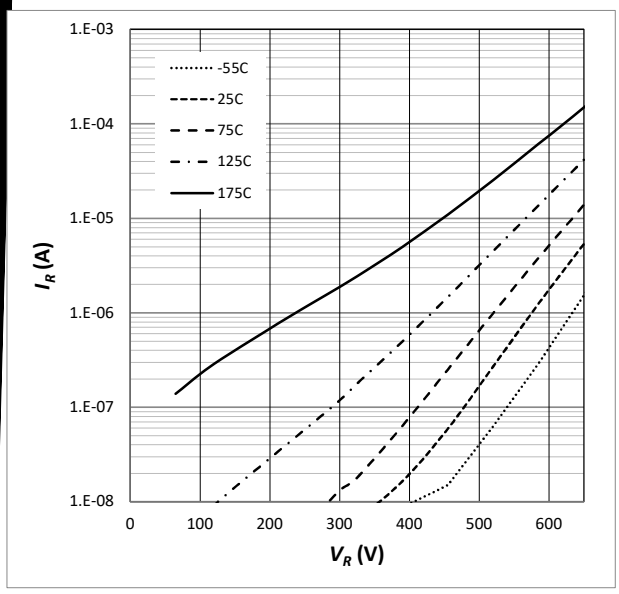


Fig. 2 Reverse Characteristics (parameterized on T_j)

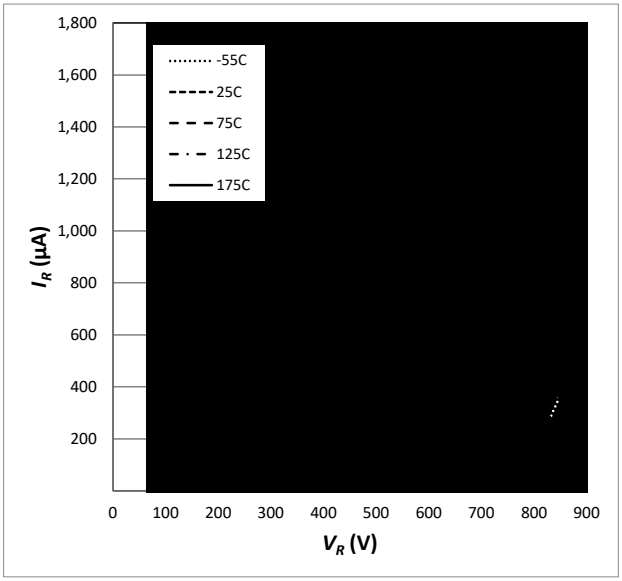


Fig. 3 Reverse Characteristics (parameterized on Tj)

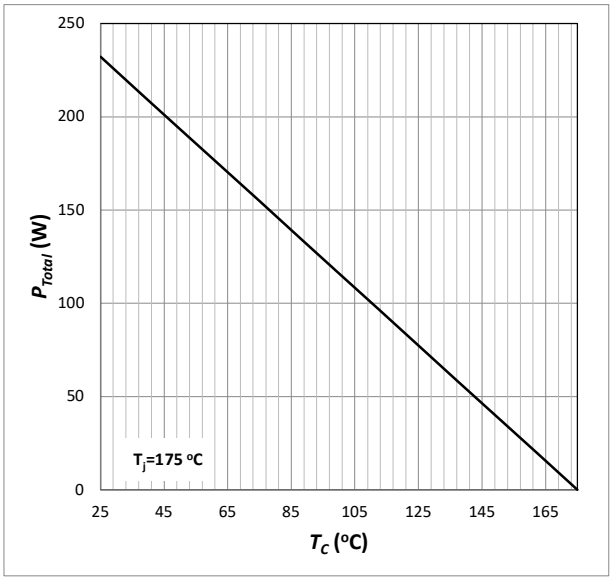


Fig. 4 Power Derating

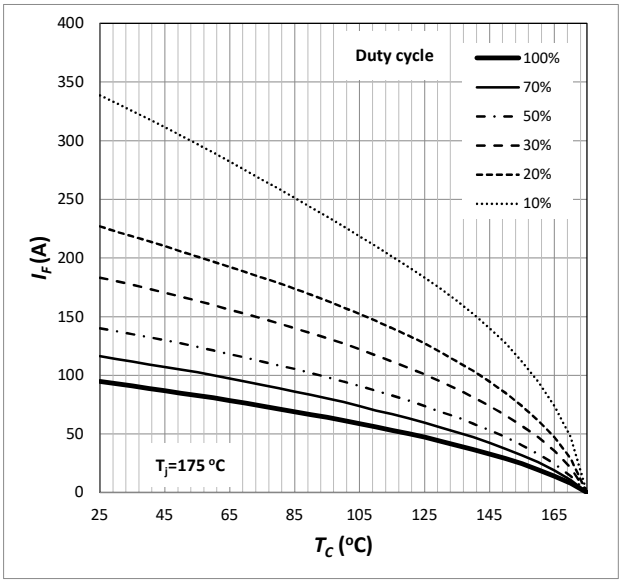


Fig. 5 Current Derating

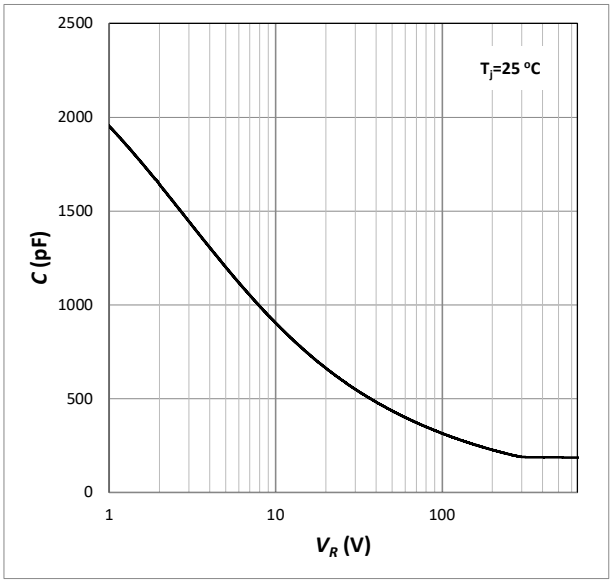
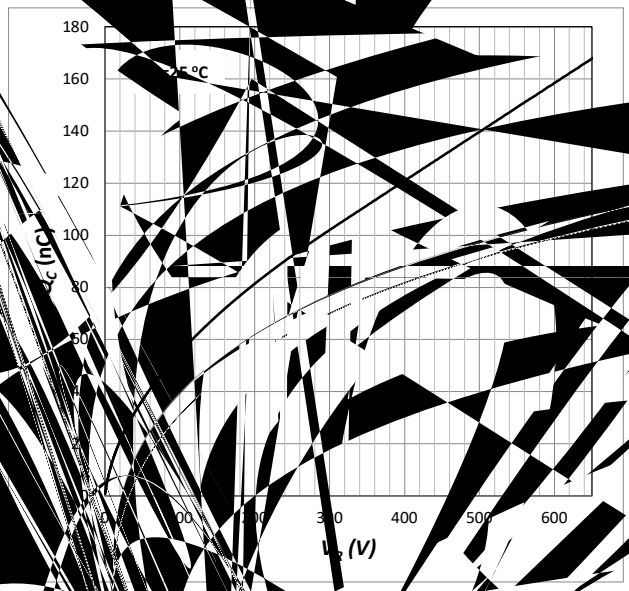


Fig. 6 Capacitance



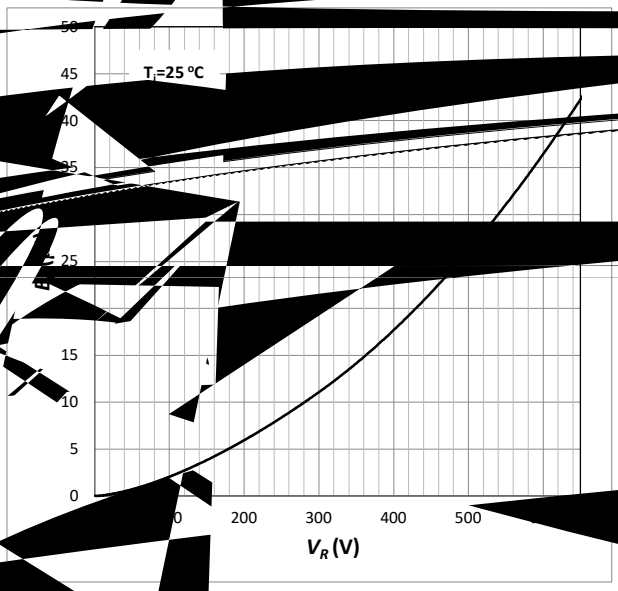


Fig. 7 Capacitive Charge

Typical Capacitance Stored Energy

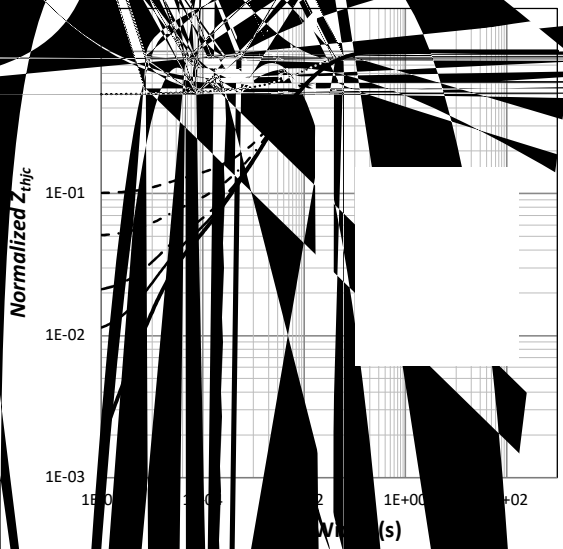


Fig. 9 Transient Thermal Impedance

Sym	Min
A	1.247
B	0.313
C	0.163
D	0.163
E	0.163
F	0.588
G	1.187
H	1.496
I	0.187
J	0.460
K	0.372
L	0.030
M	0.497
N	0.9□

Revision History

Date	Revision	Notes
8/28/2020	1.0	Initial release

Notes

RoHS Compliance

The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU Directive 2011/65/EC (RoHS2), as implemented March, 2013. RoHS Declarations for this product can be obtained from the Product Documentation sections of www.SemiQ.com.

REACh Compliance

REACh substances of high concern (SVHC) information is available for this product. Since the European Chemicals Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future,please contact our office at SemiQ Headquarters in Lake Forest, California to insure you get the most up-to-date REACh SVHC Declaration. REACh banned substance information (REACh Article 67) is also available upon request.

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