

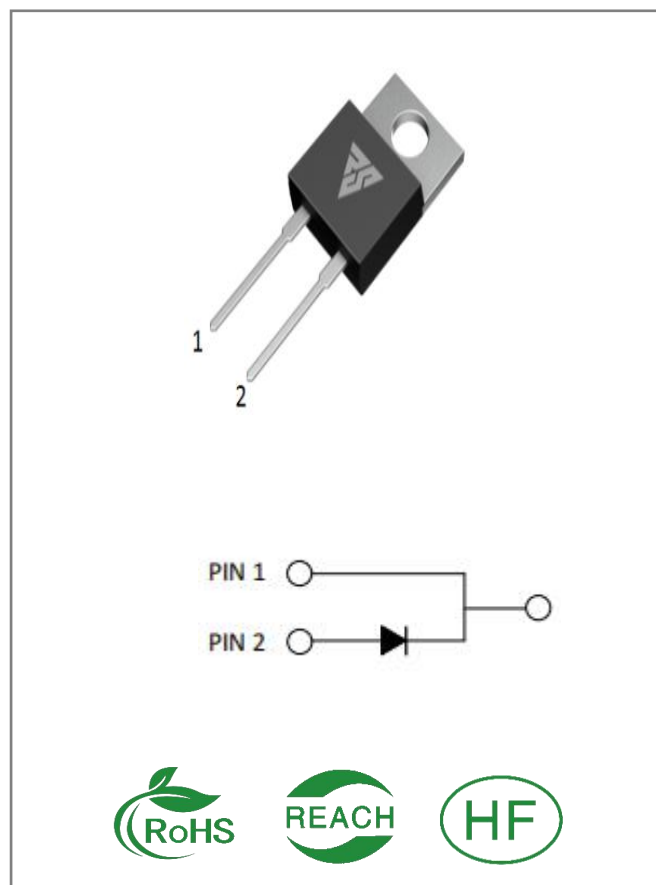
VRRM	IF (TC=150℃)	QC
650V	20A	65nC

Applications:

- Power Factor Correction
- Sever Mode Power Supplies
- Uninterruptible Power Supply

Features:

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



Ordering Information

Part Number	Package	Marking	Packing	Qty.
RSS20065A	TO-220-2	RSS20065A	Tube	50 PCS

Maximum Ratings (T_J= 25°C unless otherwise specified)

Symbol	Parameter	Min	Typ	Unit	Test Conditions	Note
VRRM	Repetitive Peak Reverse Voltage		650	V		
VRSM	Surge Peak Reverse Voltage		650	V		
VR	DC Blocking Voltage	650		V		
IF	Forward Current		20	A	TC=150°C	
IFRM	Repetitive Peak Forward Surge Current		140	A	TC = 25°C, tp = 10ms Half Sine Wave	
IFSM	Non-Repetitive Forward Surge Current		160	A	TC = 25°C, tp = 10ms Half Sine Wave D=0.3	
IF,Max	Non-Repetitive Peak Forward Surge Current		1360	A	TC = 25°C, tp = 10us Pulse	
Ptot	Power Dissipation		300 130	W	TC = 25°C TC = 110°C	
TJ,TST G	Operating Junction and Storage Temperature		-55 to175	°C		

Electrical Characteristics (T_J= 25°C unless otherwise specified)

Symbol	Parameter	Typ.	Max.	Unit	Test Conditions	Note
VF	Forward Voltage	1.4 1.7	1.8 2.4	V	IF = 20A, T _J = 25°C IF = 20A, T _J = 175°C	
IR	Reverse Current	1 20	20 200	μA	VR = 650V, T _J = 25°C VR = 650V, T _J = 175°C	
C	Total Capacitance	1340 120 109	/	pF	VR = 0V, T _J = 25°C, f = 1MHz VR = 200V, T _J = 25°C, f = 1MHz VR = 400V, T _J = 25°C, f = 1MHz	
QC	Total Capacitive Charge	65	/	nC	VR = 400V, T _J = 25°C	
Ec	Capacitance Stored Energy	16	/	uJ	VR = 400V	

Thermal Characteristics (T_J= 25°C unless otherwise specified)

Symbol	Parameter	Typ.	Unit	Note
RθJC	Thermal Resistance from Junction to Case	0.5	°C/W	

Typical Feature Curve

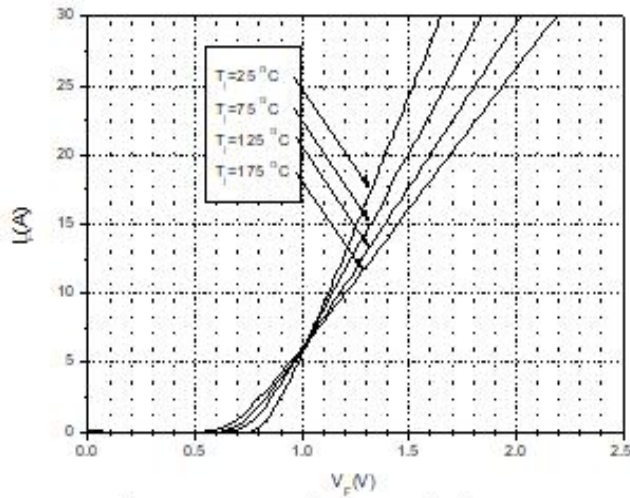


Figure 1. Forward Characteristics

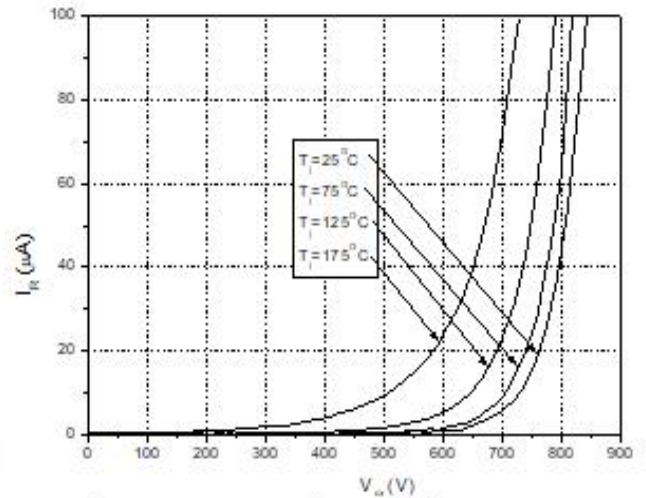


Figure 2. Reverse Characteristics

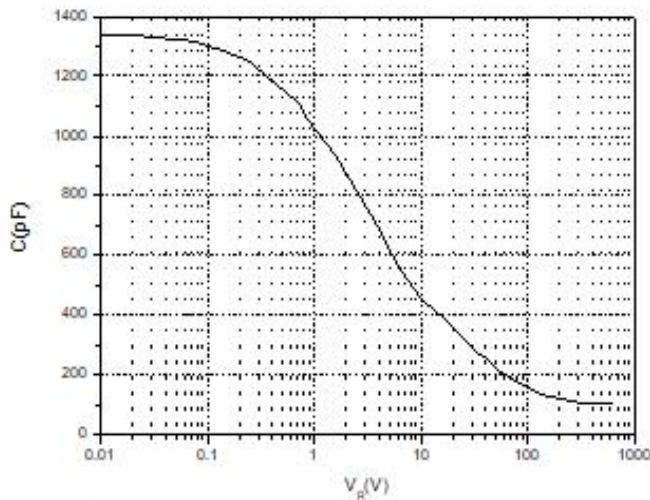


Figure 3. Capacitance vs. Reverse Voltage

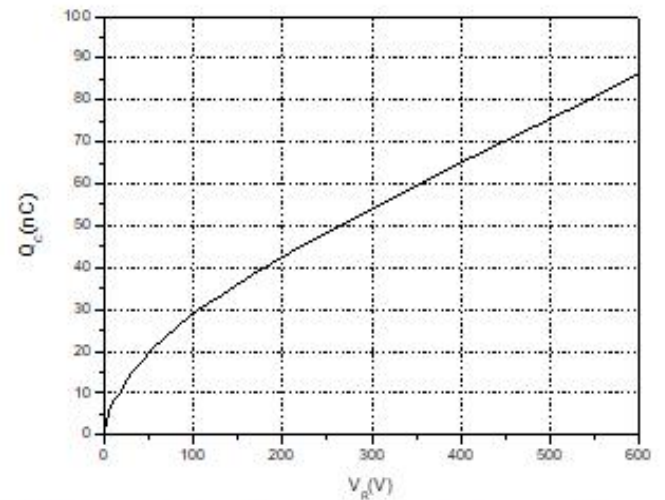


Figure 4. Total Capacitance Charge vs. Reverse Voltage

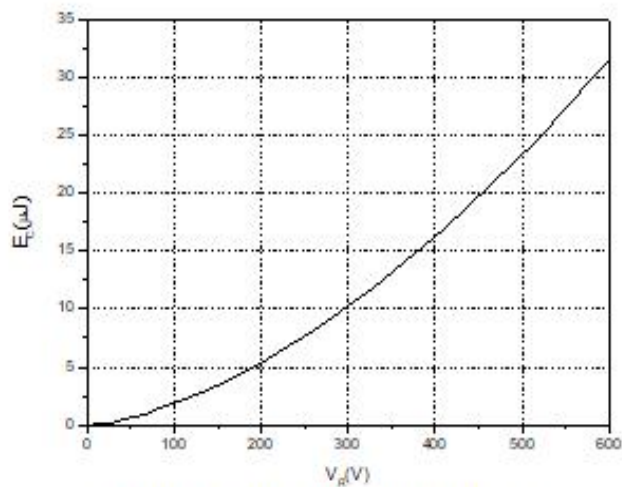


Figure 5. Capacitance Stored Energy

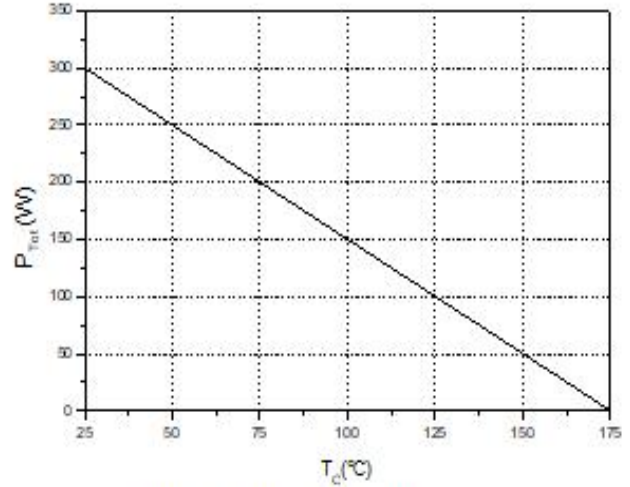


Figure 6. Power Derating

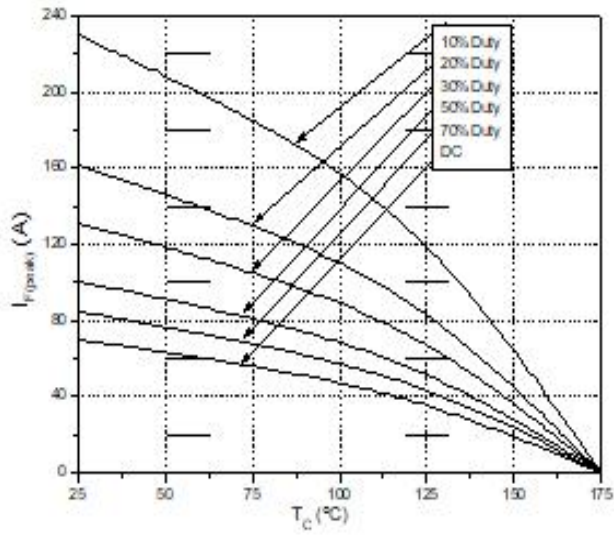


Figure 7. Current Derating

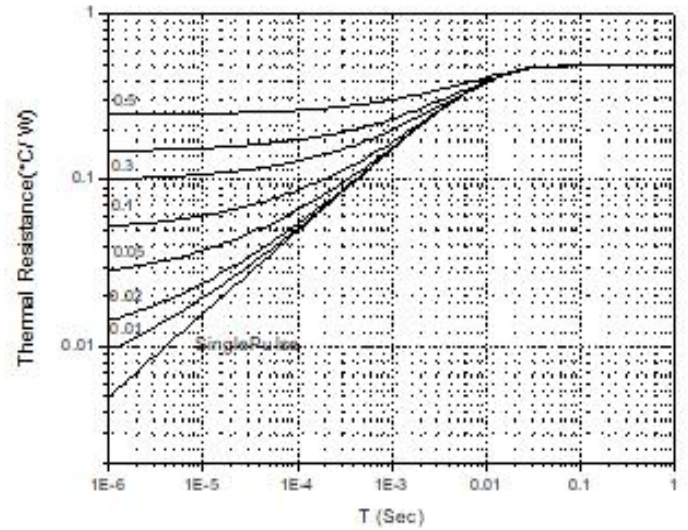
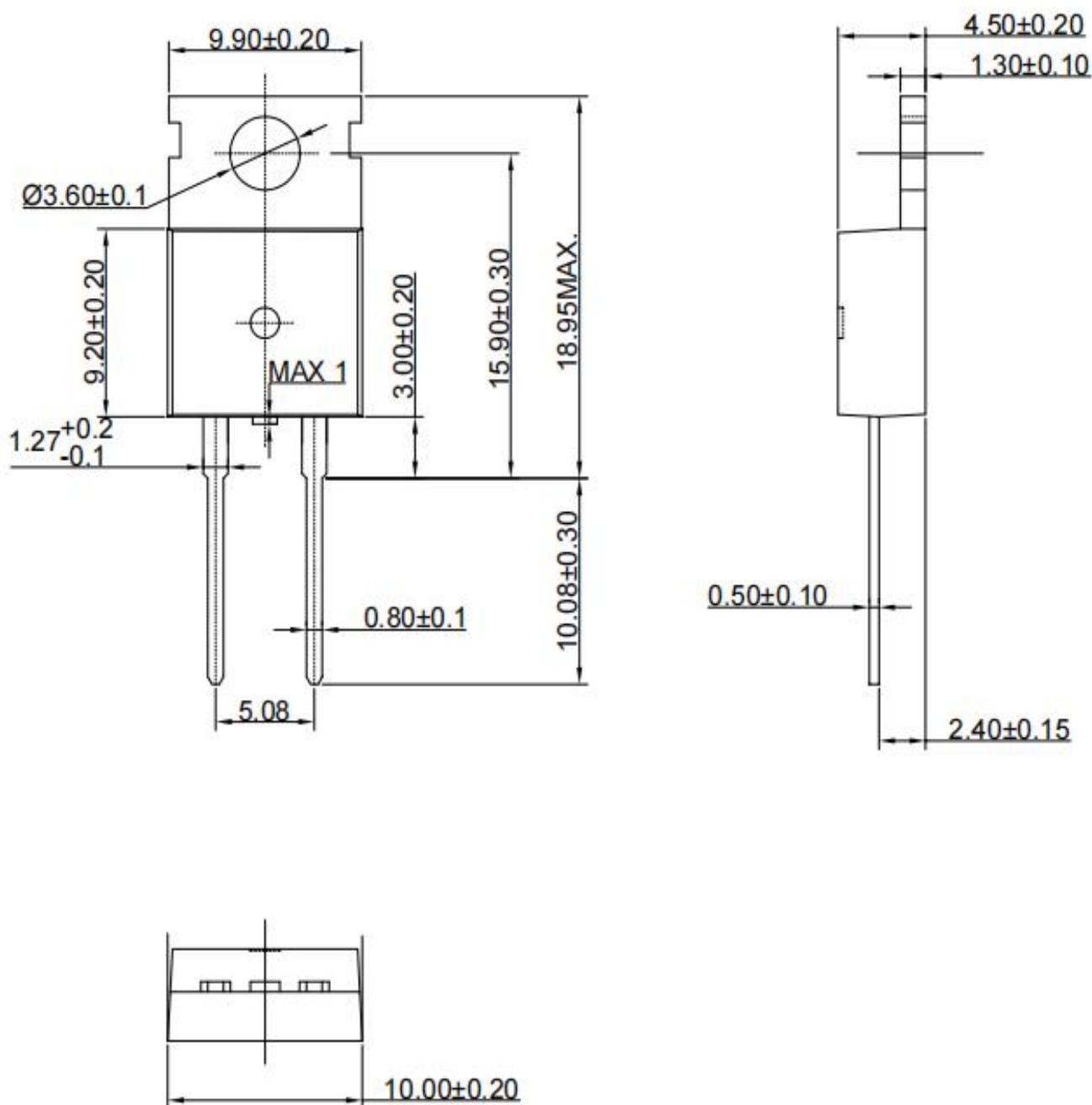


Figure 8. Transient Thermal Impedance

Package outline drawing(TO-220 Unit: mm)



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