

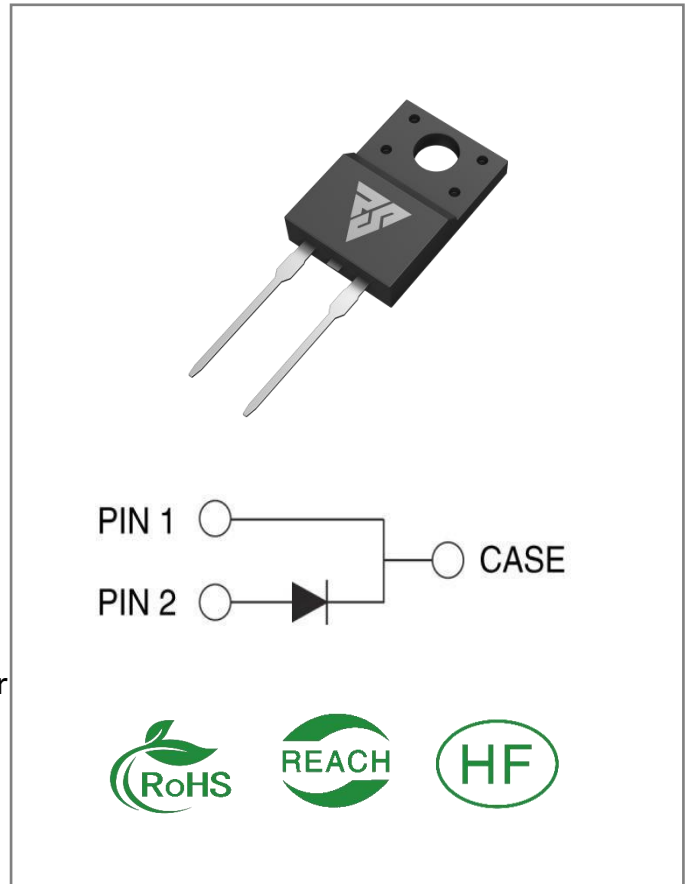
VRRM	IF (TC=120℃)	QC
650V	8A	28nC

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.
RSS08065F	TO-220F	RSS08065F	Tube	50 PCS

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

Symbol	Parameter	Value	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	8	A	TC = 120°C	
IFSM	Non-Repetitive Forward Surge Current	105	A	TC = 25°C, t _p = 10ms Half Sine Wave	
IF,Max	Non-Repetitive Peak Forward Surge Current	840	A	TC=25°C, t _P = 10 μs, Pulse	
IFRM	Repetitive Peak Forward Surge Current	80	A	TC = 25°C, t _p = 10ms Half Sine Wave	
P _{tot}	Power Dissipation	55.6 24.1	W	TC = 25°C TC = 110°C	
T _C	Maximum Case Temperature	153	°C		
T _J ,T _{ST} 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
V _F	Forward Voltage	1.3 1.75	1.6 2.0	V	IF = 10A, T _J = 25°C IF = 10A, T _J = 175°C	
I _R	Reverse Current	1 20	20 200	μA	VR = 650V, T _J = 25°C VR = 650V, T _J = 175°C	
C	Total Capacitance	550 53 48	/	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	
Q _C	Total Capacitive Charge	28	/	nC	VR = 400V, IF=10A, T _J = 25°C $Q_c = \int_0^{V_R} C(V) dV$	
E _c	Capacitance Stored Energy	7.0	/	μJ	VR = 400V	

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

Symbol	Parameter	Typ.	Unit	Note
R _{θJC}	Thermal Resistance from Junction to Case	2.7	°C/W	

Typical Feature Curve

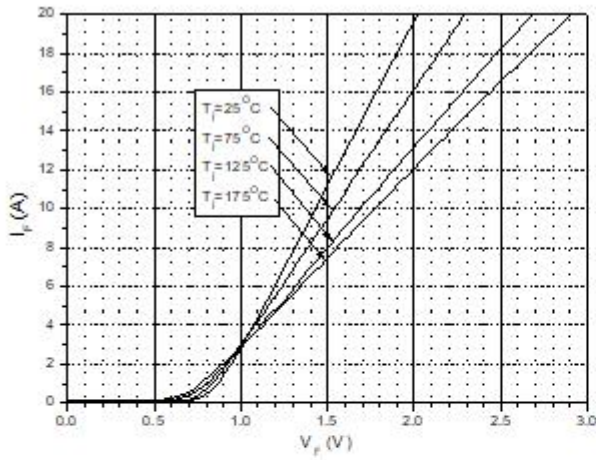


Figure 1. Forward Characteristics

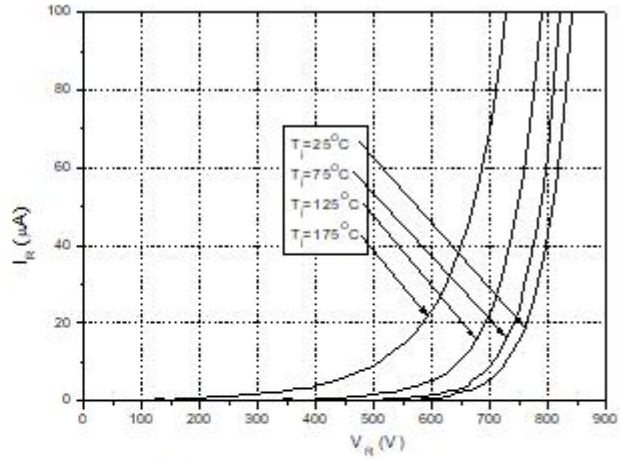


Figure 2. Reverse Characteristics

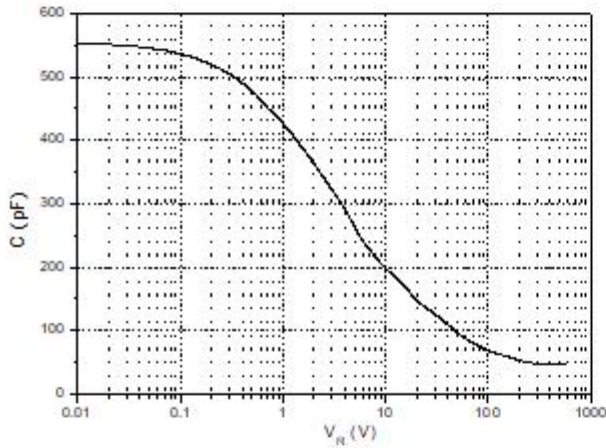


Figure 3. Capacitance vs. Reverse Voltage

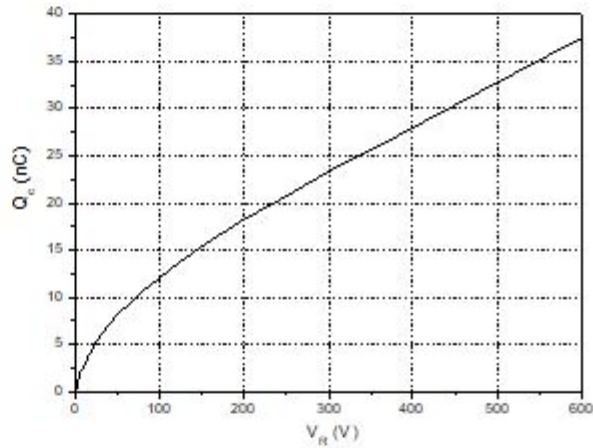


Figure 4. Total Capacitance Charge vs. Reverse Voltage

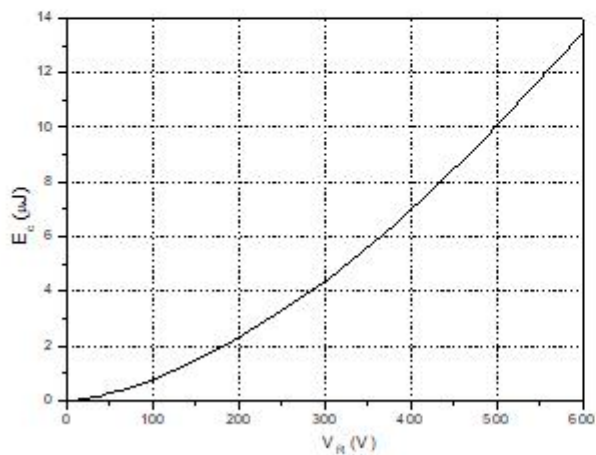


Figure 5. Capacitance Stored Energy

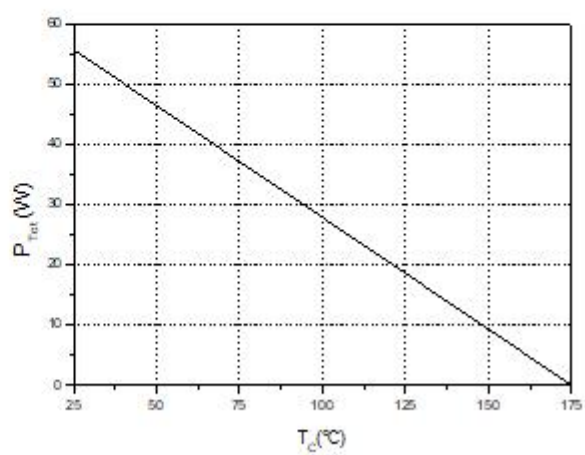
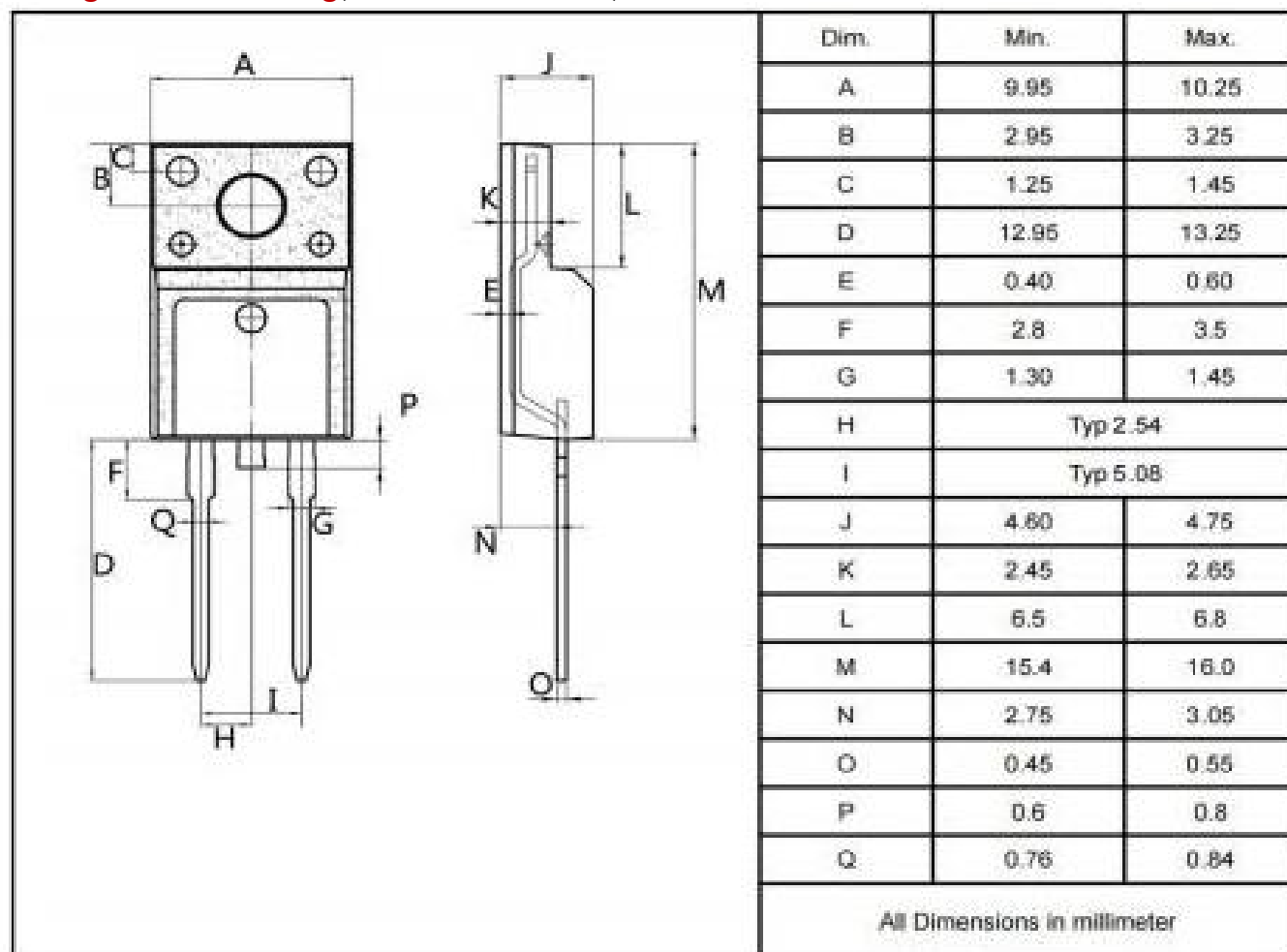


Figure 6. Power Derating

Package outline drawing(TO-220F Unit: mm)



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