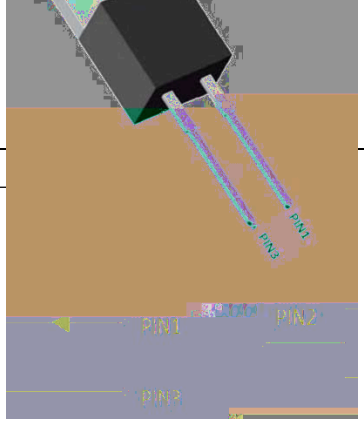
YJD112015PGG2



Typical Applications

Typical applications are in power factor correction(PFC), solar inverter, uninterruptible power supply, motor drives, photovoltaic inverter, electric car and charger.

Mechanical Data

- **Package**: TO-220AC
- **Terminals**: Tin plated leads
- **Polarity**: As marked

■Maximum Ratings (T_C=25 Unless otherwise specified

PARAMTETER	SYMBOL	UNIT	
Device marking code			D112015PGG2
Reverse voltage (repetitive peak) @ T_j=25°C	V_{RRM}	V	1200
Reverse voltage (Surge Peak) @ T_j=25°C	V_{RSM}	V	1200
Reverse voltage (DC) @ T_j=25°C	V_{DC}	V	1200
Continuous forward current @ T_c=25°C	I_F	A	
Continuous forward current @ T_c=135°C			
Continuous forward current @ T_c=158°C			
Non-repetitive peak forward surge current @ T_c=25°C, tp=10ms, Half Sine Wave	I_{FSM}	A	140
Power Dissipation@ T_c=25°C	P_{TOT}	W	241
Power Dissipation@ T_c=110°C			104

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- Maximum working temperature at 175 °C
- Unipolar devices and zero reverse recovery current

■Electrical Characteristics

PARAMTETER	SYMBOL	UNIT	TEST CONDITIONS	Typ.	Max.
Forward voltage drop	V_F	V	I_F=15A, T_j=25°C	1.25	1.45
			I_F=15A, T_j=175°C	1.65	1.85
Reverse leakage current	I_R	μA	V_R=1200V, T_j=25°C	0.5	25
			V_R=1200V, T_j=175°C	5	-
Total capacitive charge	Q_C	nC	V_R=800V, T_j=25°C , QC=$\int_0^{VR}$C(V)dV	114	-
			V_R=0V, f=1MHZ	1552	-
Total capacitance	C	pF	V_R		

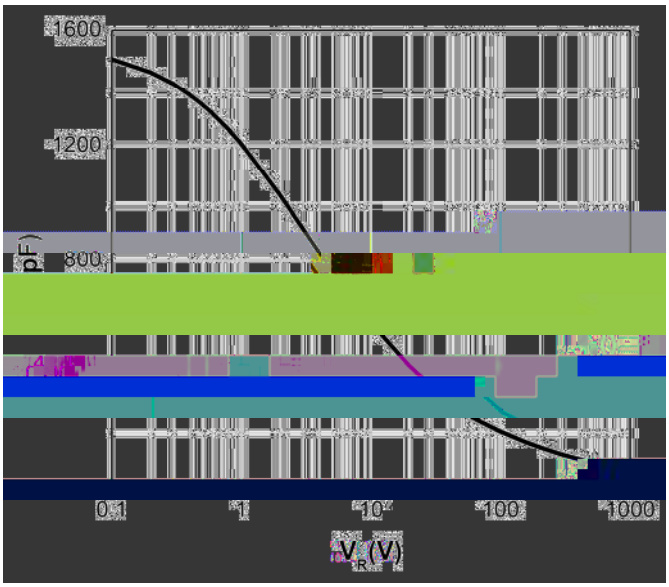


Figure 3. Capacitance vs. Reverse Voltage

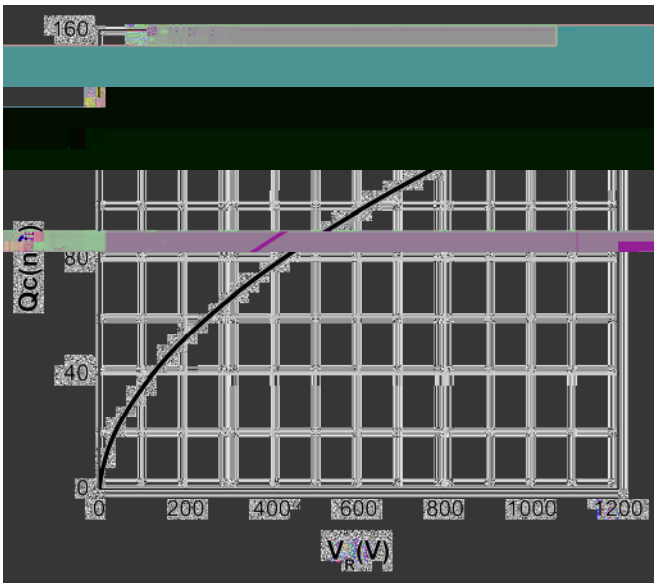


Figure 4. Total Capacitance Charge vs. Reverse Voltage

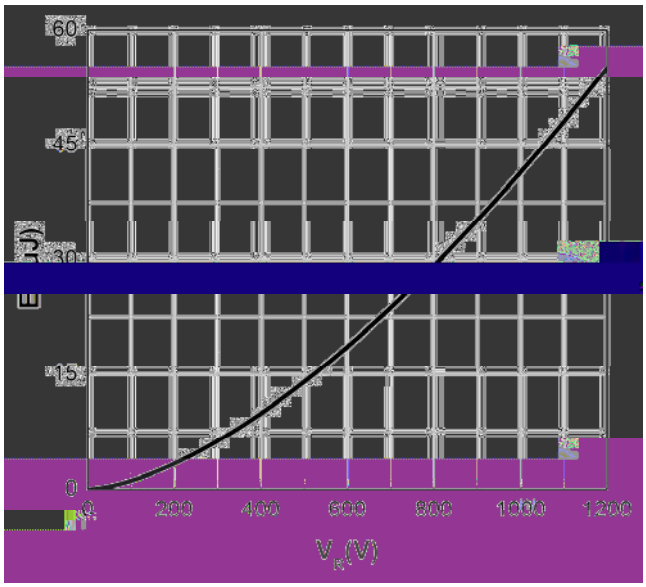


Figure 5. Capacitance Stored Energy

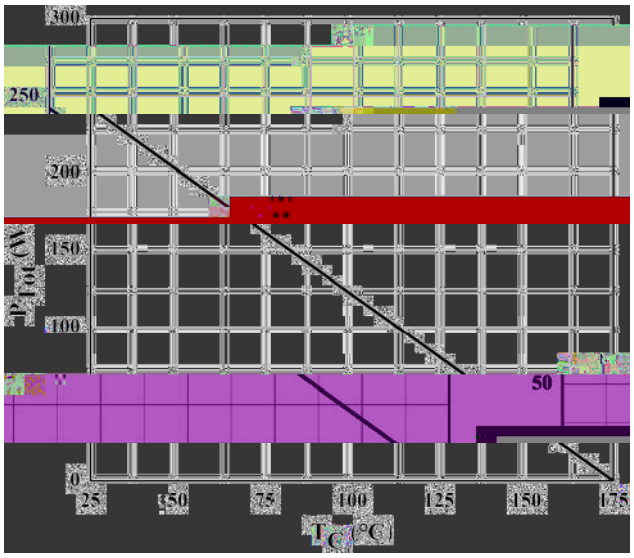


Figure 6. Power Derating

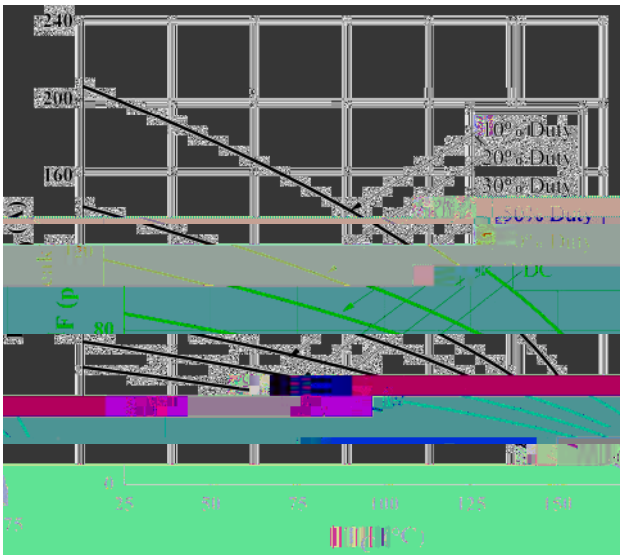


Figure 7. Current Derating

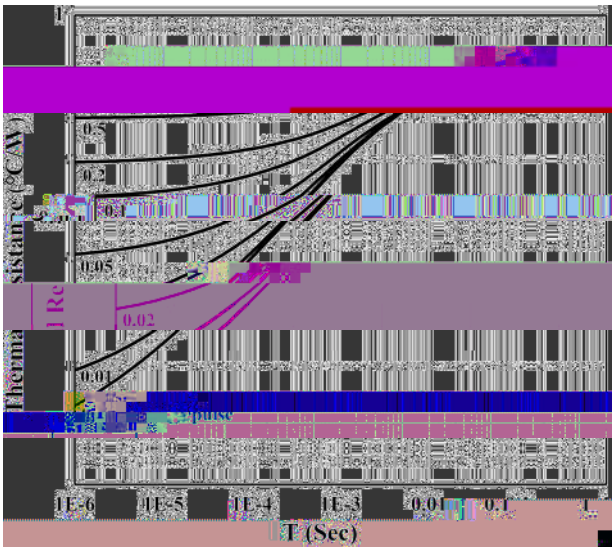
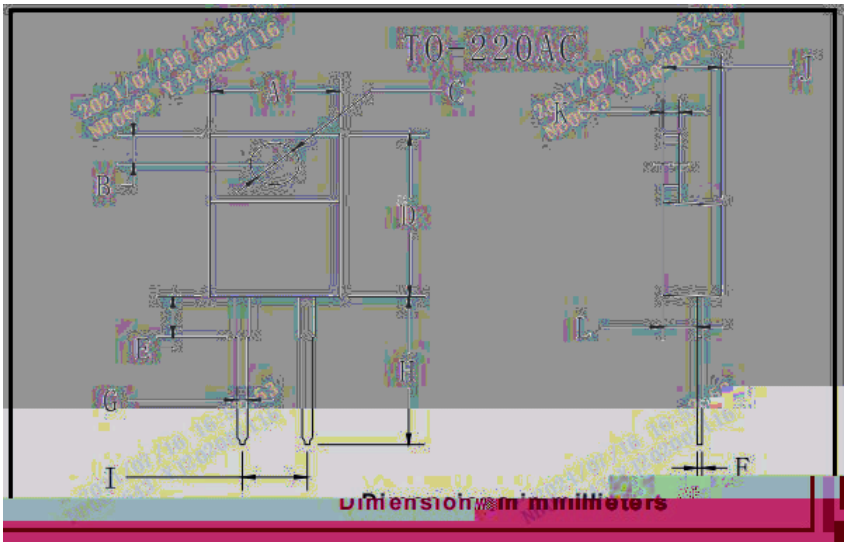


Figure 8. Transient Thermal Impedance

■Outline Dimensions



TO-220AC		
Dim	Min	Max
A	9.5	10.9
B	2.22	3.27
C	3.34	4.31
D	14.5	15.5
E	3.16	4.46
F	0.28	0.64
G	0.68	0.94
H	13.06	14.63

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