

**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-247AB
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads
- **Polarity:** As marked

■Maximum Ratings ($T_C=25$ Unless otherwise specified)

PARAMTETER	SYMBOL	UNIT	VALUE
Device marking code			D112020NCTCG2
Reverse voltage (Repetitive peak) @ $T_J=25^{\circ}\text{C}$	V_{RRM}	V	1200
Reverse voltage (Surge peak) @ $T_J=25^{\circ}\text{C}$	V_{RSM}	V	1200
Reverse voltage (DC) @ $T_J=25^{\circ}\text{C}$			

$\leq 164^{\circ}\text{C}$			10/20
Non-repetitive peak forward surge current @ $T_C=25^{\circ}\text{C}$, $t_p=10\text{ms}$, Half Sine Wave	I_{FSM}	A	86 ⁽¹⁾
Power Dissipation@ $T_C=25^{\circ}\text{C}$	P_{TOT}	W	272/535
Power Dissipation@ $T_C=110^{\circ}\text{C}$			118/232
i^2t Value@ $T_C=25^{\circ}\text{C}$, $t_p=10\text{ms}$	$\int i^2 dt$	A^2S	36 ⁽¹⁾

Operating junction and Storage temperature T_J, T_{STG} $-55^{\circ}\text{C} \sim +175^{\circ}\text{C}$



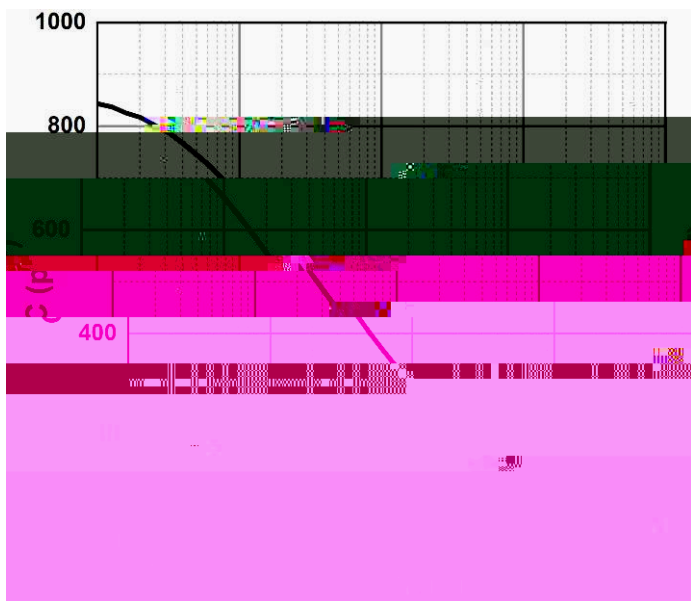


Figure 3. Capacitance vs. Reverse Voltage

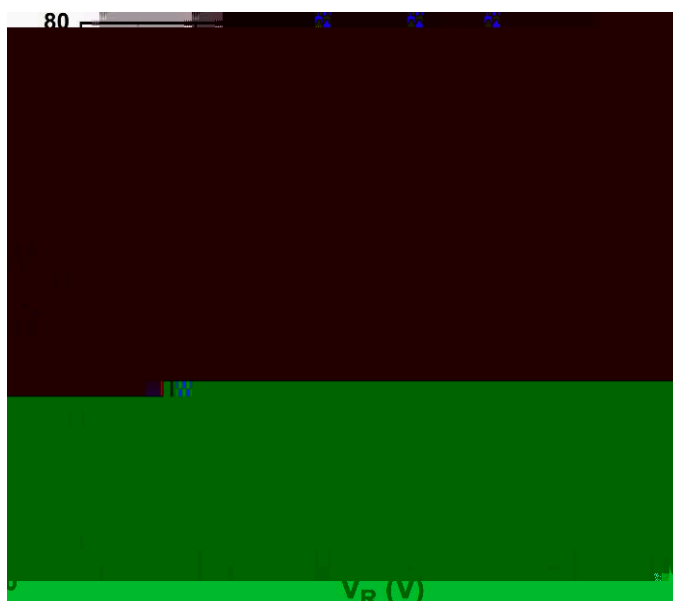


Figure 4. Total Capacitance Charge vs. Reverse Voltage

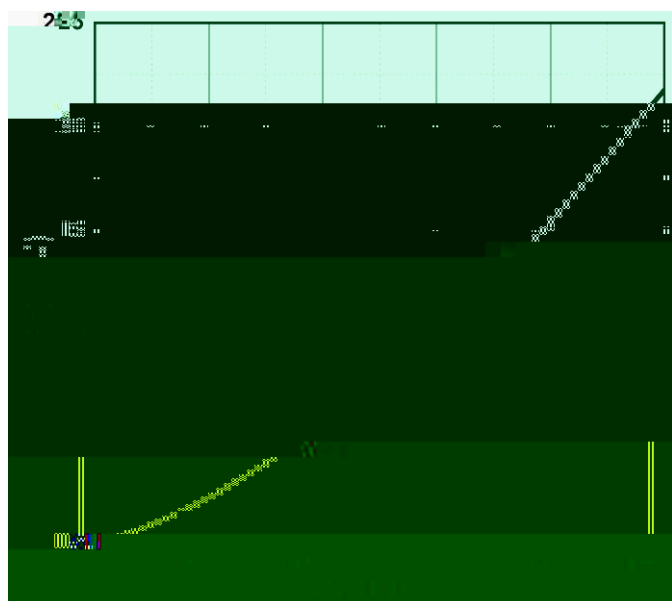


Figure 5. Capacitance Stored Energy

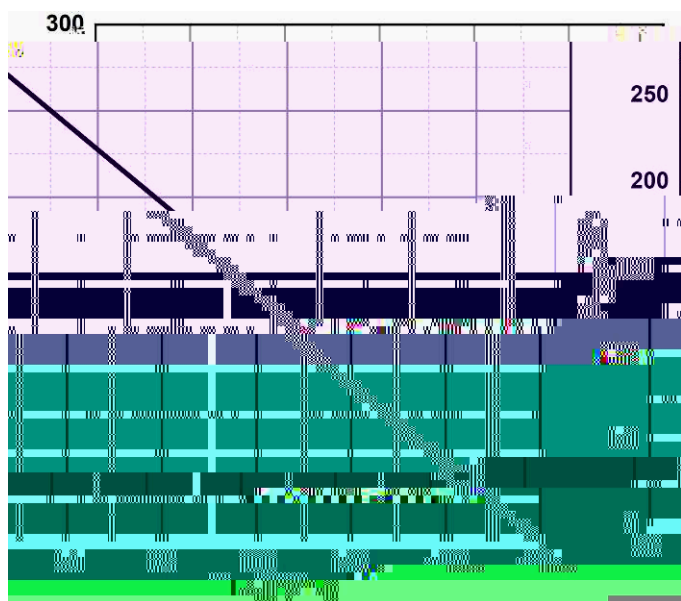


Figure 6. Power Derating

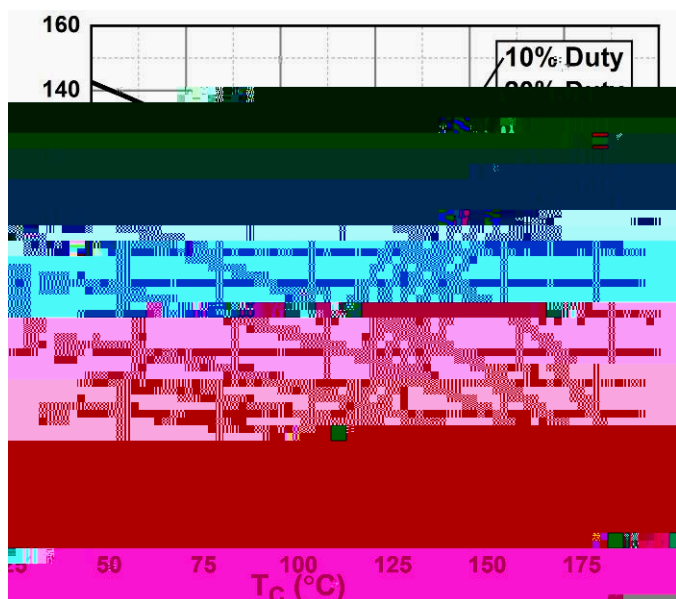
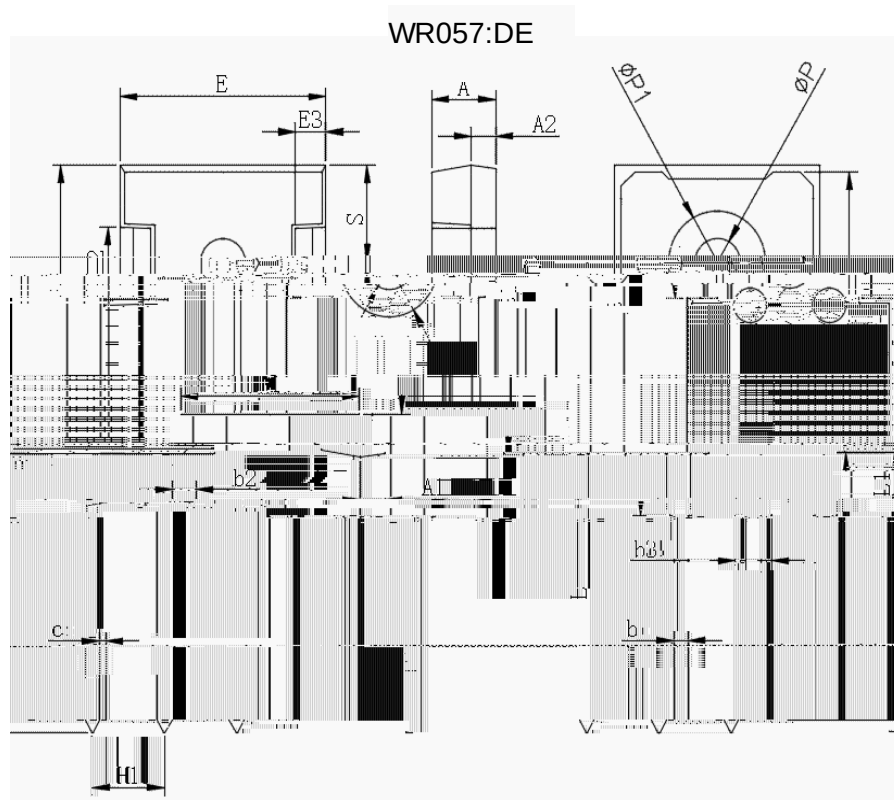


Figure 7. Current Derating

■Outline Dimensions



TO-247AB		
Dim	Min	Max
A	4.80	5.20
A1	2.21	2.61
A2	1.85	2.15
b	1.0	1.4
b2	1.91	2.21
C	0.5	0.7
D	20.70	21.30
D1	16.25	16.85
E	15.50	16.10
E1	13.0	13.6
E2	4.80	5.20
E3	2.30	2.70
L	19.62	20.22
L1	-	4.30
$\bar{u}P$	3.40	3.80
$\bar{u}P1$	-	7.30
S	6.15TYP	
H1	5.44TYP	
b3	2.80	3.20



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