



Positive temperature coefficient
 Temperature-independent switching
 Maximum working temperature at 175 °C
 Unipolar devices and zero reverse recovery current
 Zero forward recovery current
 Essentially no switching losses
 Reduction of heat sink requirements
 High-frequency operation
 Reduction of EMI

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

: TO-263
 : Tin plated leads
 : As marked

($T_c=25$ Unless otherwise specified)

Device marking code			D112010BXQG2
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) @ $T_j=25^\circ\text{C}$	V_{DC}	V	1200
Continuous forward current @ $T_c=25^\circ\text{C}$	I_F	A	33
Continuous forward current @ $T_c=135^\circ\text{C}$			14
Continuous forward current @ $T_c=141^\circ\text{C}$			10
Non-repetitive peak forward surge current @ $T_c=25^\circ\text{C}$, $t_p=10\text{ms}$, Half Sine Wave	I_{FSM}	A	85
Power Dissipation @ $T_c=25^\circ\text{C}$	P_{TOT}	W	158
Power Dissipation @ $T_c=110^\circ\text{C}$			68
i^2t Value @ $T_c=25^\circ\text{C}$, $t_p=10\text{ms}$	i^2dt	A^2S	36
Operating junction and Storage temperature range	T_j, T_{stg}	$^\circ\text{C}$	-55 to +175



Forward voltage drop	V_F	V	$I_F=10A, T_j=25^\circ C$	1.42	1.54
			$I_F=10A, T_j=175^\circ C$	2.1	-
Reverse leakage current	I_R	μA	$V_R=1200V, T_j=25^\circ C$	1.3	13
			$V_R=1200V, T_j=175^\circ C$	6	-
Total capacitive charge	Q_C	nC	$V_R=800V, T_j=25^\circ C, Q_C=\int_0^{V_R} I_C(V)dV$	53	
Total capacitance	C	μF	$V_R=0V, f=1MHz$	700	-
			$V_R=400V, f=1MHz$	49	-
			$V_R=800V, f=1MHz$	39	-
Capacitance Stored Energy	E_C	μJ	$V_R=800V$	14	-

$T_a=25$ Unless otherwise specified

Thermal resistance	R_{j-c}	$^\circ C/W$	0.95
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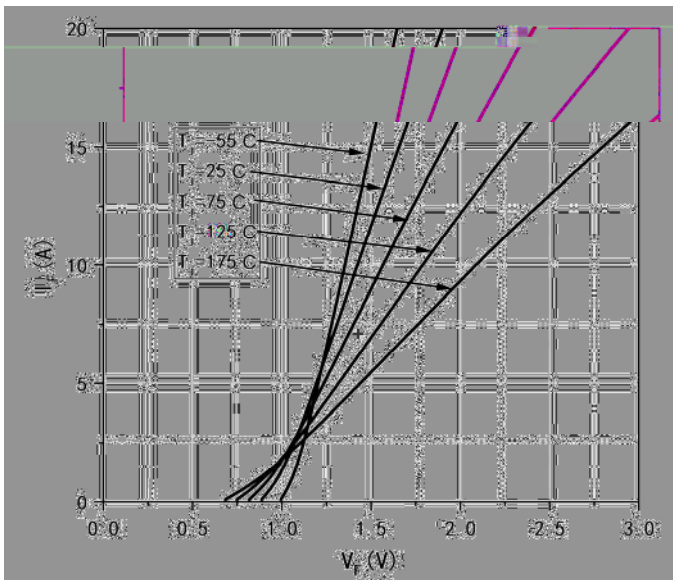


Figure 1. Forward Characteristics

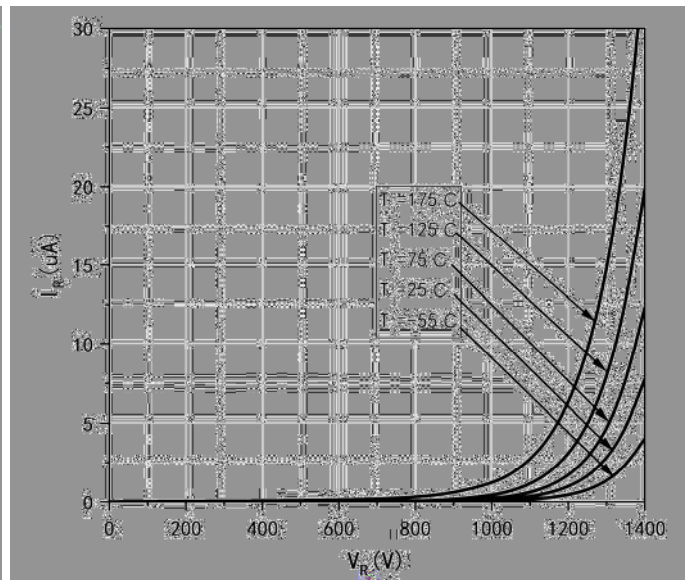


Figure 2. Reverse Characteristic

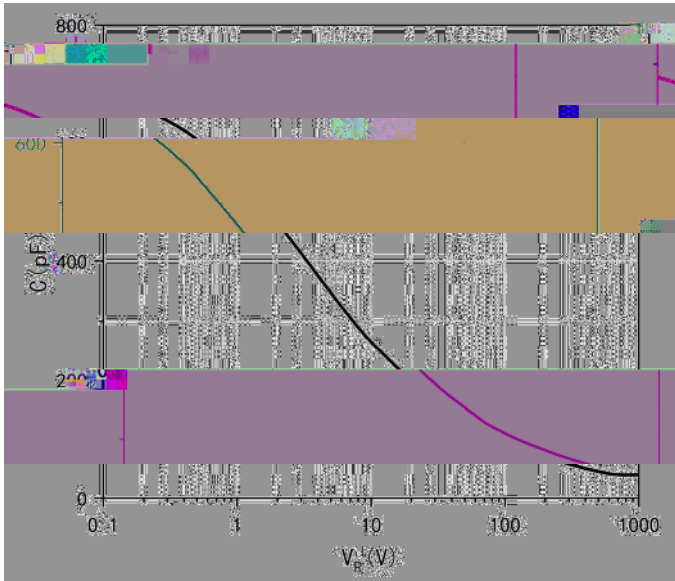


Figure 3. Capacitance vs. Reverse Voltage

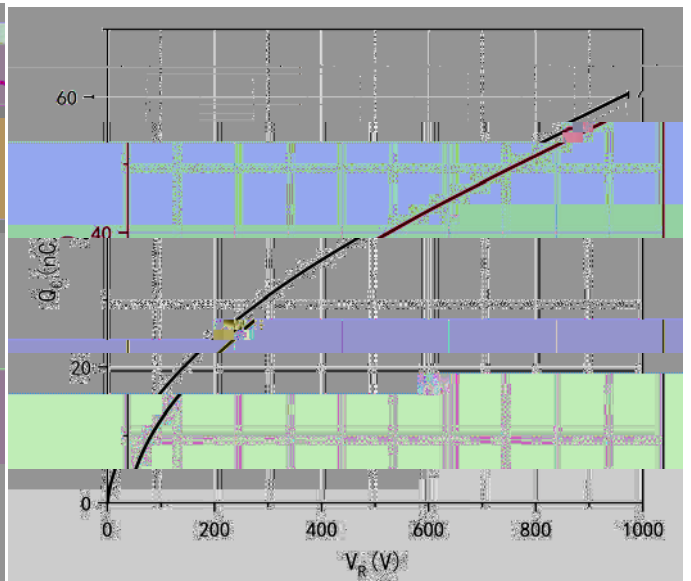


Figure 4. Total Capacitance Charge vs. Reverse Voltage

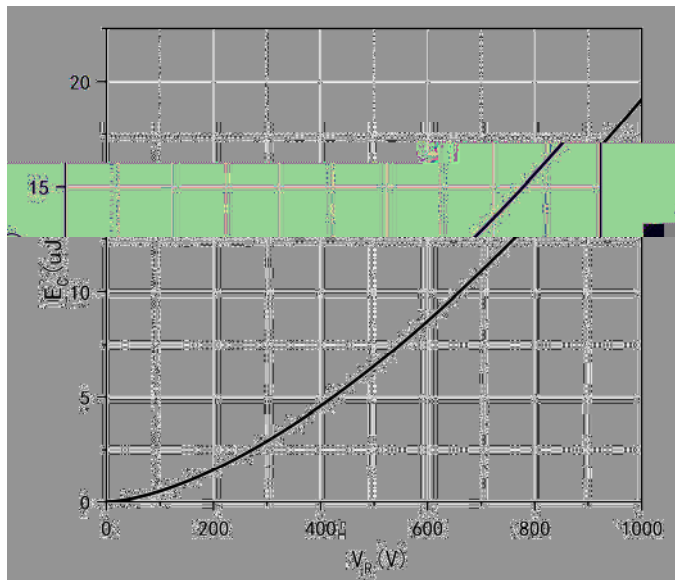


Figure 5. Capacitance Stored Energy

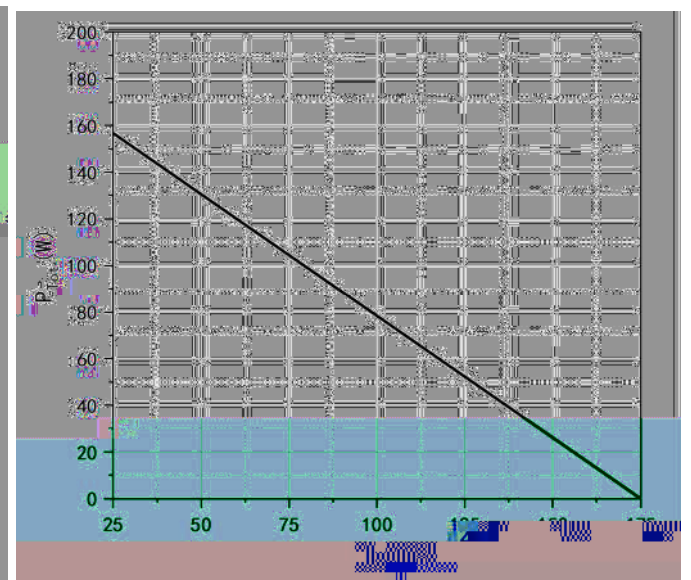


Figure 6. Power Derating

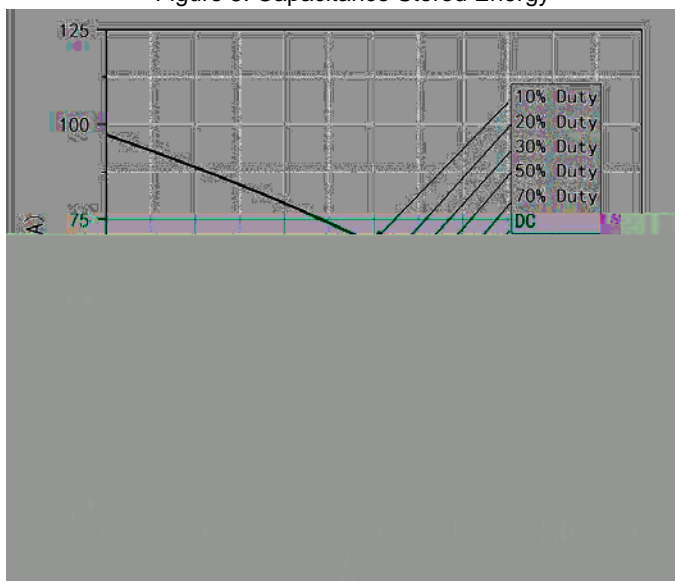


Figure 7. Current Derating

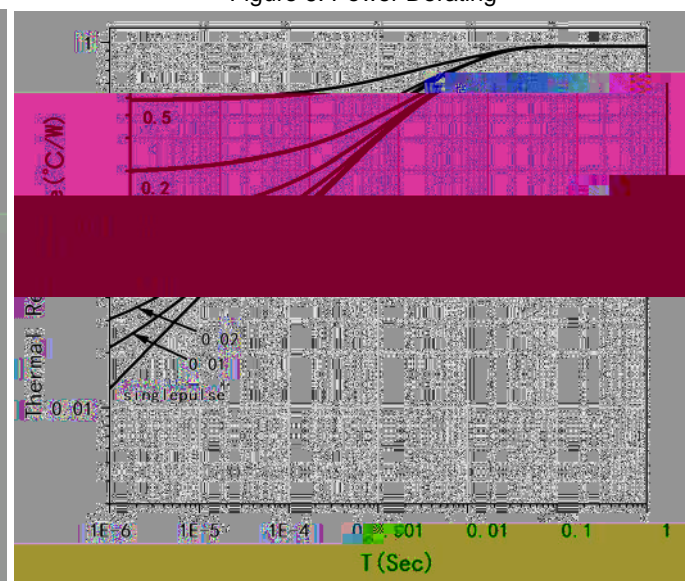
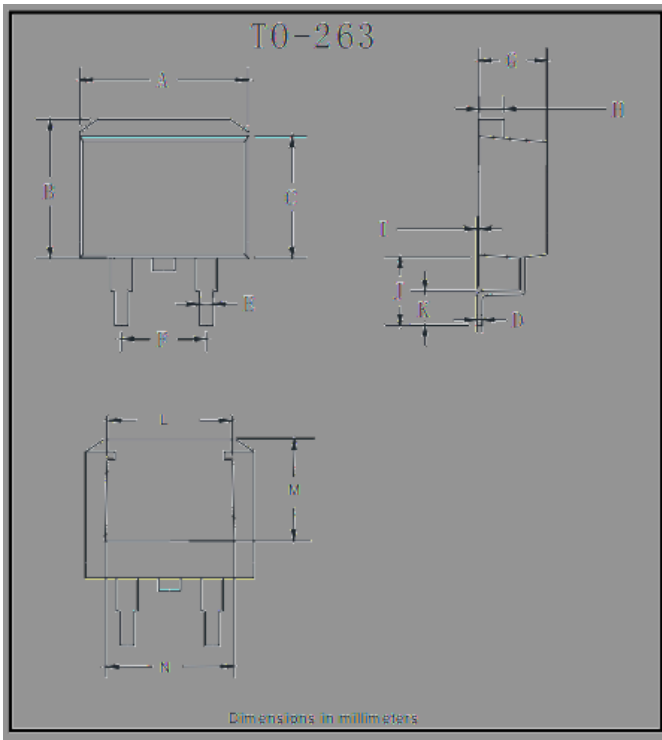


Figure 8. Transient Thermal Impedance



TO-263		
Dim	Min	Max
A	9.5	11.5
B	9.7	10.5
C	8.4	9.0
D	0.28	0.61
E	0.68	0.94
F	4.55	5.6
G	4.04	5.10
H	1.14	1.4
J	0	0.2
J	4.9	6.05
K	1.79	2.79
L	7.3	7.9
M	6.2	6.8
N	7.6	8.2



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