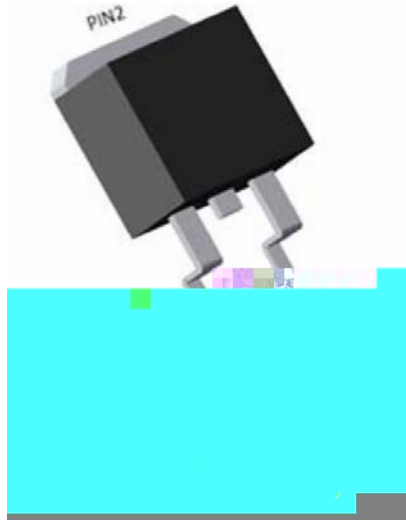


V_{RRM}	1200V
I_F 135°C	25A
Q_C	114nC



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			D112020BXGG2
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 @ $T_c=25^\circ\text{C}$ $T_c=135^\circ\text{C}$ $T_c=141^\circ\text{C}$	I_F	A	56 25 20
Non-repetitive peak forward surge current @ $T_c=25^\circ\text{C}$, $t_p=10\text{ms}$, Half Sine Wave	I_{FSM}	A	160
Power Dissipation @ $T_c=25^\circ\text{C}$ $T_c=110^\circ\text{C}$	P_{TOT}	W	214 92
i^2t Value @ $T_c=25^\circ\text{C}$, $t_p=10\text{ms}$	i^2dt	A^2S	128
Operating junction and Storage temperature range	T_j, T_{stg}	$^\circ\text{C}$	-55 to +175



Forward voltage drop	V_F	V	$I_F=20A, T_j=25^{\circ}C$	1.34	1.55
			$I_F=20A, T_j=175^{\circ}C$	1.86	2.70
Reverse leakage current	I_R	μA	$V_R=1200V, T_j=25^{\circ}C$	0.5	25
			$V_R=1200V, T_j=175^{\circ}C$	5	-
Total capacitive charge	Q_C	nC	$V_R=800V, T_j=25^{\circ}C, Q_C=\int_0^{V_R} C(V)dV$	114	
Total capacitance	C	μF	$V_R=0V, f=1MHz$	1552	-
			$V_R=400V, f=1MHz$	107	-
			$V_R=800V, f=1MHz$	79	-
Capacitance Stored Energy	E_C	μJ	$V_R=800V$	29.3	-

$T_a=25$ Unless otherwise specified

Thermal resistance	R_{J-C}	$^{\circ}C/W$	0.7
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(Typical)

Figure 1. F

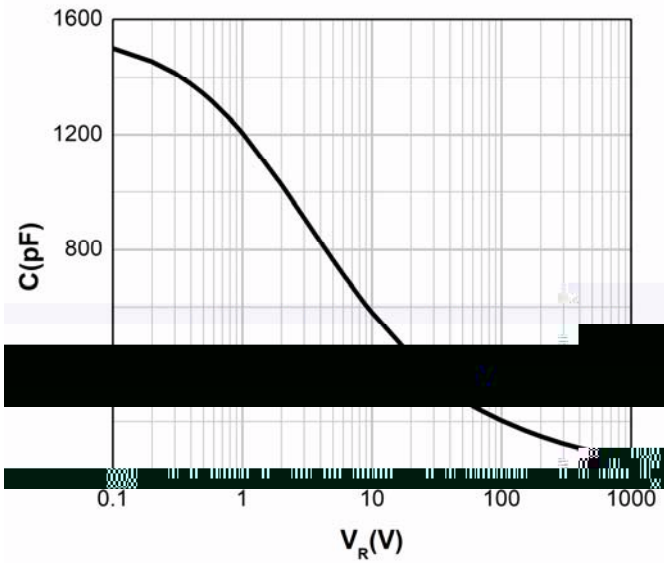


Figure 3. Capacitance vs. Reverse Voltage

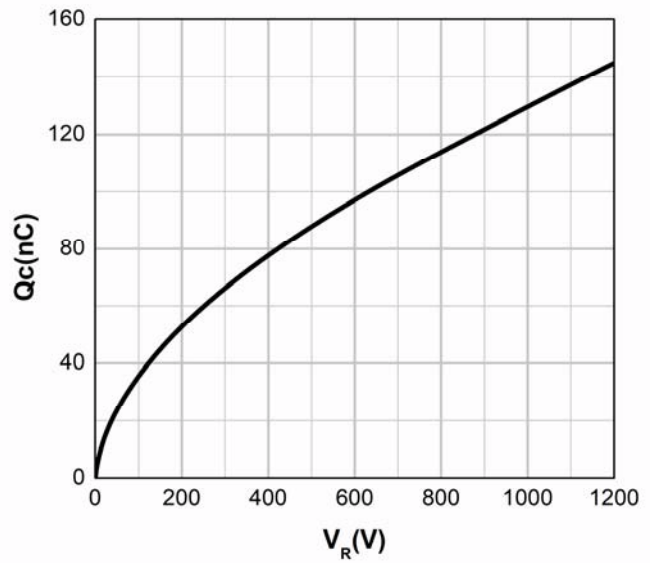


Figure 4. Total Capacitance Charge vs. Reverse Voltage

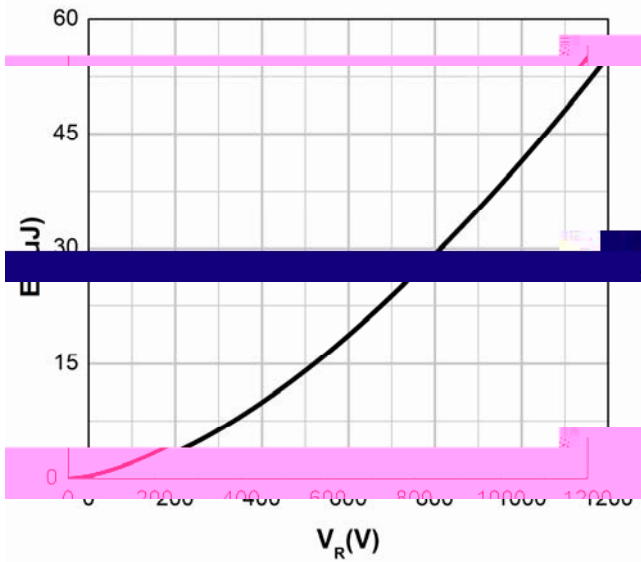


Figure 5. Capacitance Stored Energy

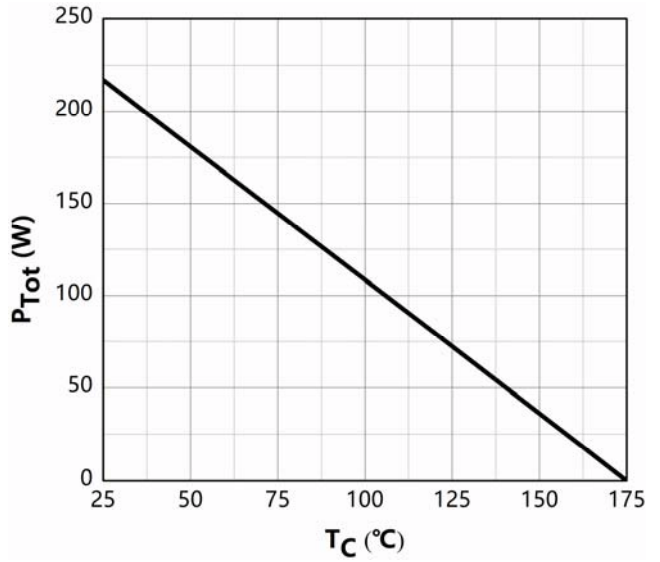


Figure 6. Power Derating

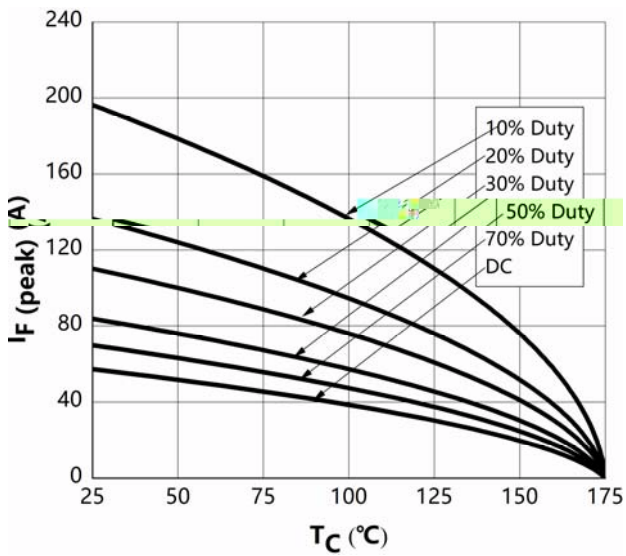


Figure 7. Current Derating

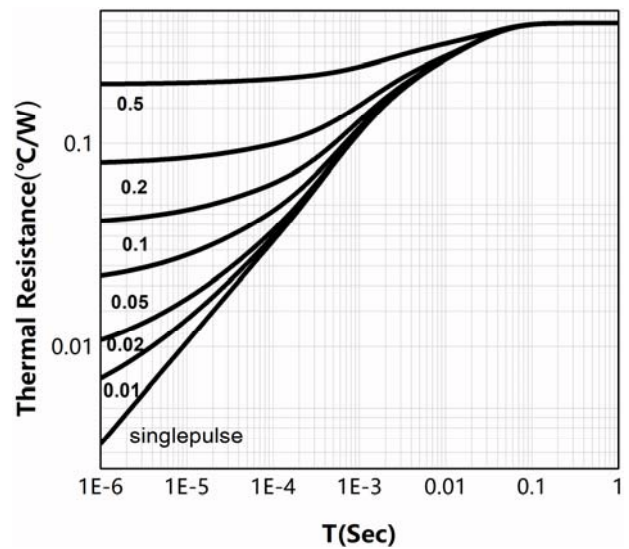
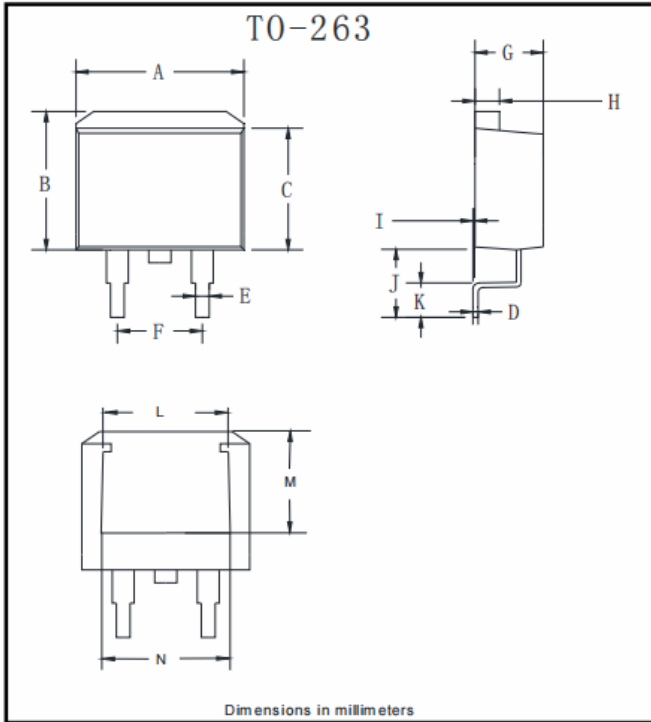


Figure 8. Transient Thermal Impedance



T0-263		
Max	Dim	Min
11.5	A	9.5
10.5	B	9.7
9.0	C	8.4
0.64	D	0.28
0.94	E	0.68
5.6	F	4.55
5.10	G	4.04
1.4	H	1.14
0.2	I	0
6.05	J	4.9
2.79	K	1.79
7.9	L	7.3
6.8	M	6.2
8.2	N	7.6



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