



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)



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
--------------------	-----------	---------------	-----

(Typical)

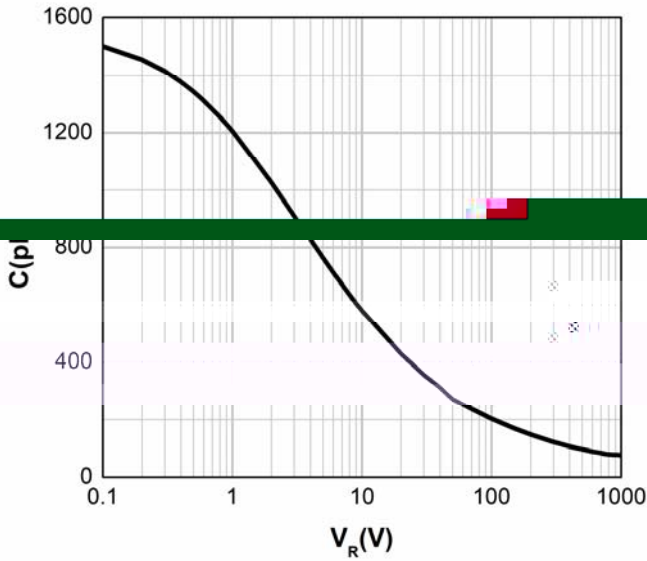


Figure 3. Capacitance vs. Reverse Voltage

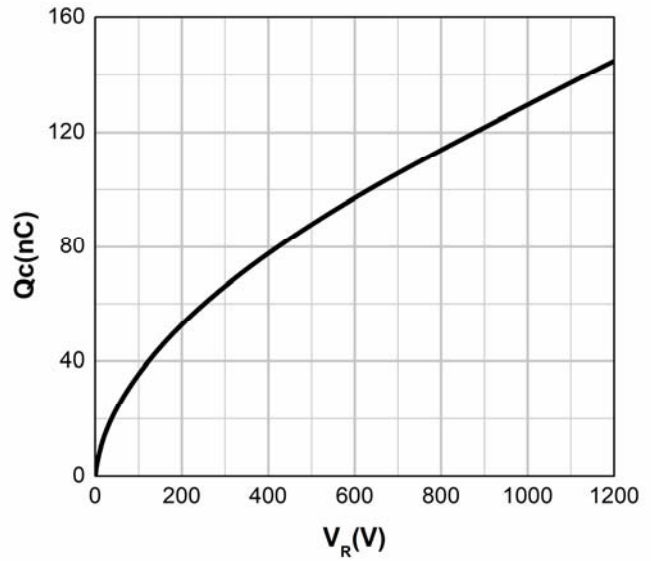


Figure 4. Total Capacitance Charge vs. Reverse Voltage

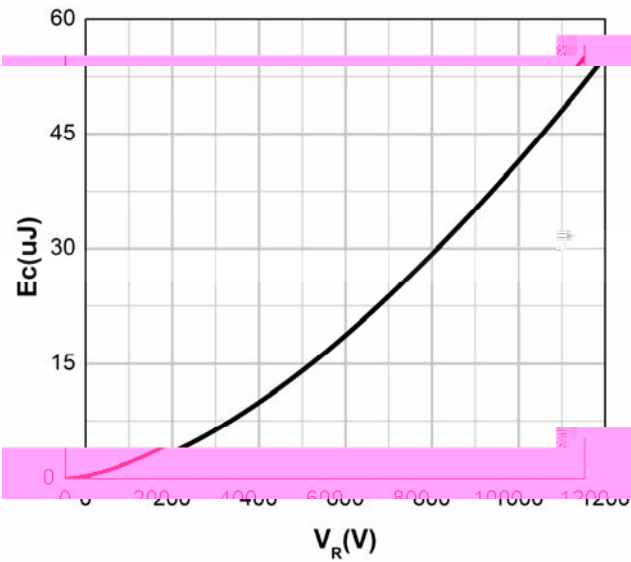


Figure 5. Capacitance Stored Energy

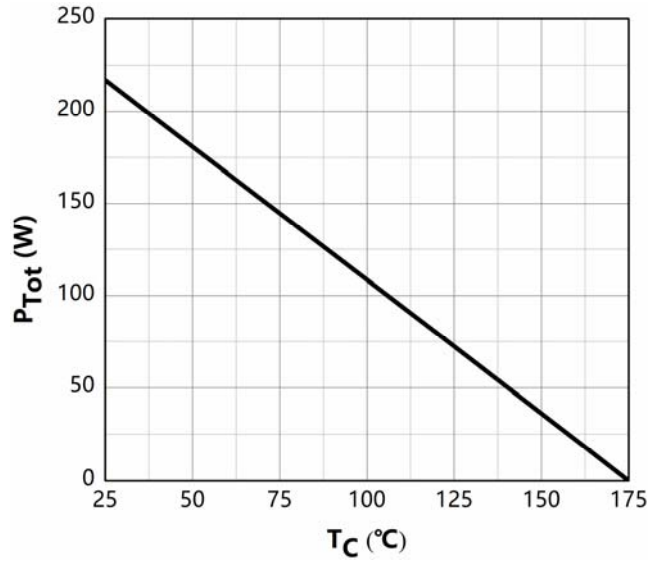


Figure 6. Power Derating

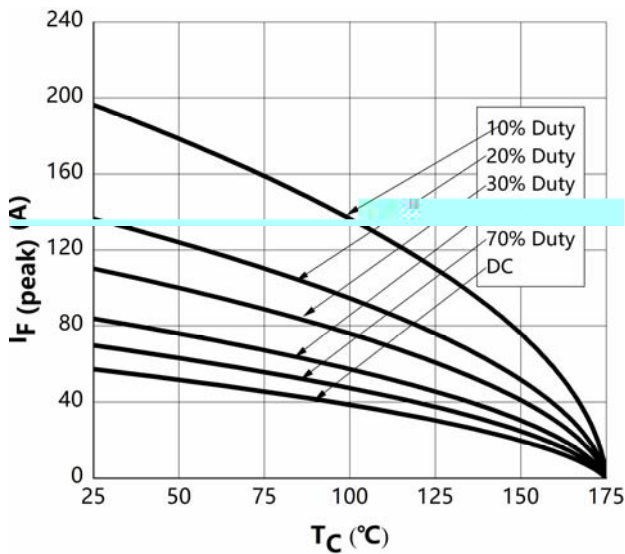


Figure 7. Current Derating

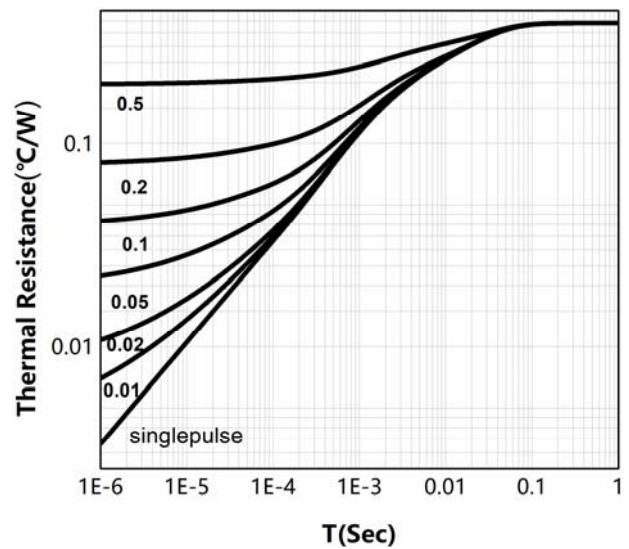
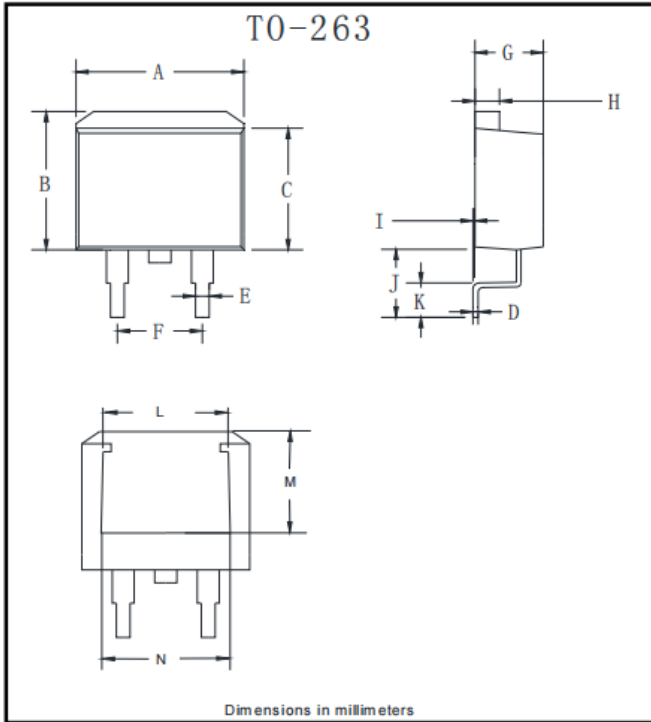


Figure 8. Transient Thermal Impedance



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



The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.frxelec.com](http://www.frxelec.com) , or consult your nearest Yangjie's sales office for further assistance.