

High Power Diodes R7100G 04C SERIES

Features

- * Very Low on state voltage
- * Very Low thermal resistance
- * High Surge current capabilities
- * Low Power dissipation
- * Case style G

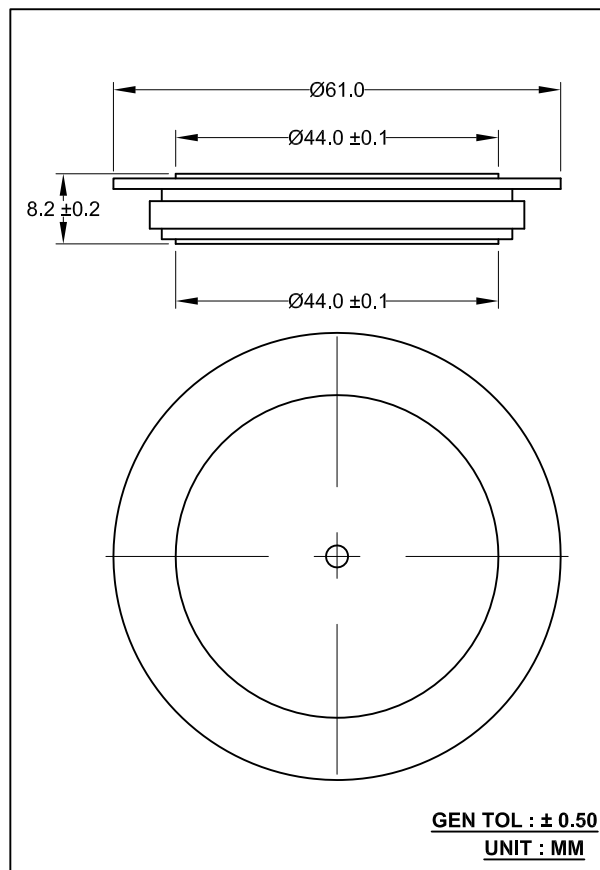
Typical Applications

- * Electro plating
- * Welding

MAJOR RATING & CHARACTERISTICS

Parameters	R 7100G 04 C	Units
$I_F(AV)$ Max. average on State	7110	A
@ T_C Half Sine wave	85	°C
I_{FSM} $T_C = 25^\circ C$, 50 Hz	55000	A
I^2t	15100	KA ² s
V_{RRM} Range	200	V
T_J	- 40°C to 170°C	°C
T_{stg}	- 40°C to 170°C	°C
V_{FM} @ $I_{FM} = 5000A$ $T_C = 25^\circ C$	1.05	V
V_{F0} Threshold Voltage (Approx. for $I_F = 5 - 15 KA$ @ $T_J = 170^\circ C$)	0.74	V
I_F Slope Resistance (Approx. for $I_F = 5 - 15 KA$ @ $T_J = 170^\circ C$)	0.026	mΩ
I_{RRM} Repetitive Peak reverse current	≤ 50	mA
$R_{th(J-C)}$ Double side Cooled	10	K/kW
$R_{th(C-h)}$ Double side Cooled	5	K/kW
F Mounting Force, ±10%	24	kN
Wt Approximate weight	140	g

OUT LINE DIAGRAM



STANDARD RECOVERY DIODE

R 7100 G 04 C Series

On-state characteristics

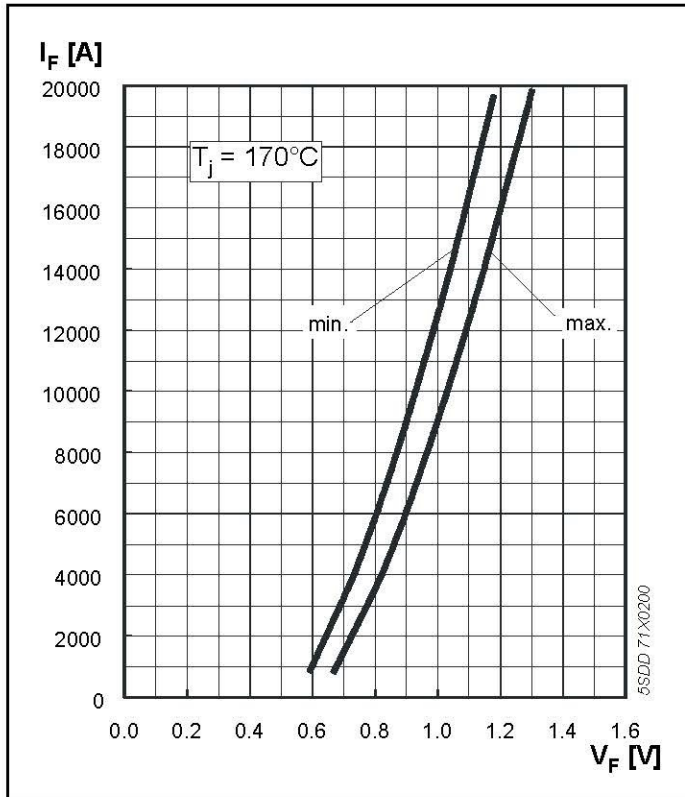


Fig. 1 Forward current vs. forward voltage (min. and max. values).

Surge current characteristics

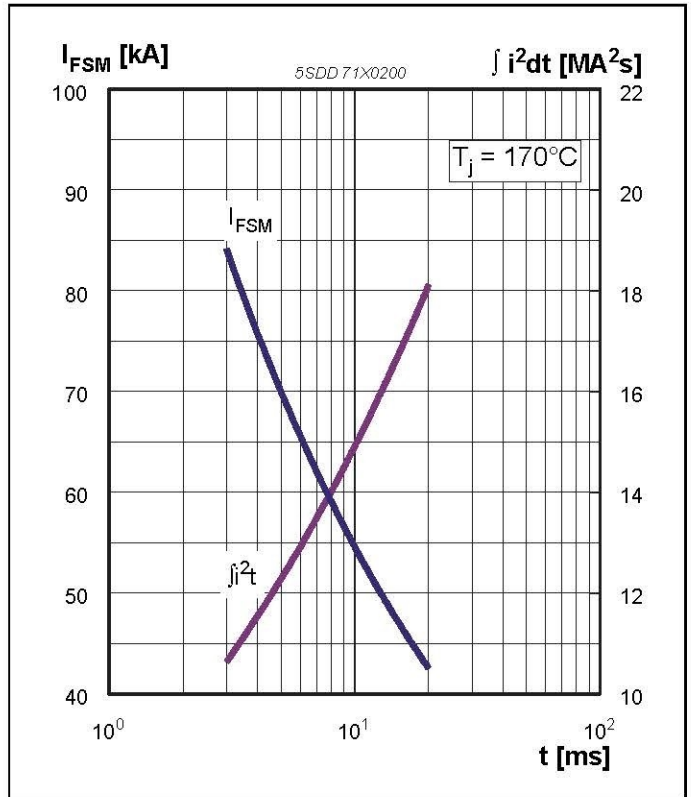


Fig. 2 Surge current and fusing integral vs. pulse width (max. values) for non-repetitive, half-sinusoidal surge current pulses.

Current load capability

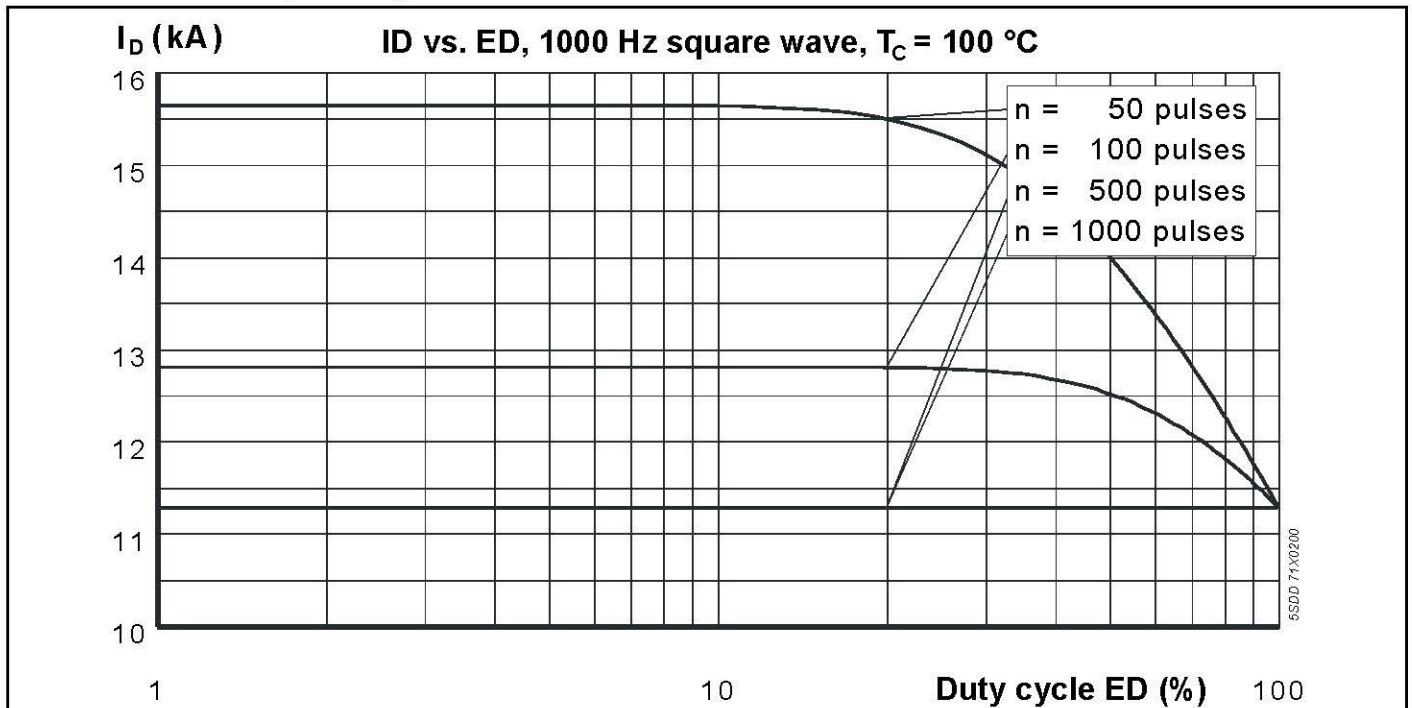


Fig. 3 DC-output current with single-phase centre tap

Current load capacity, cont.

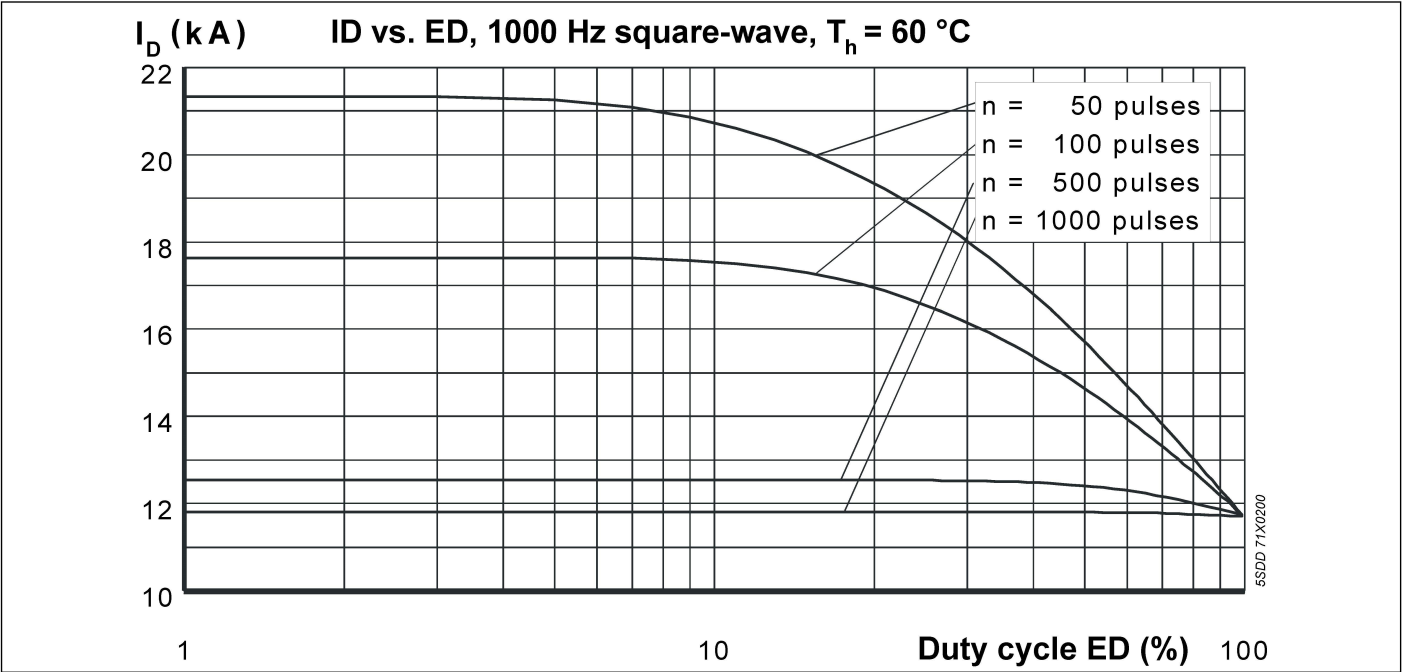


Fig. 4 DC-output current with single-phase centre tap

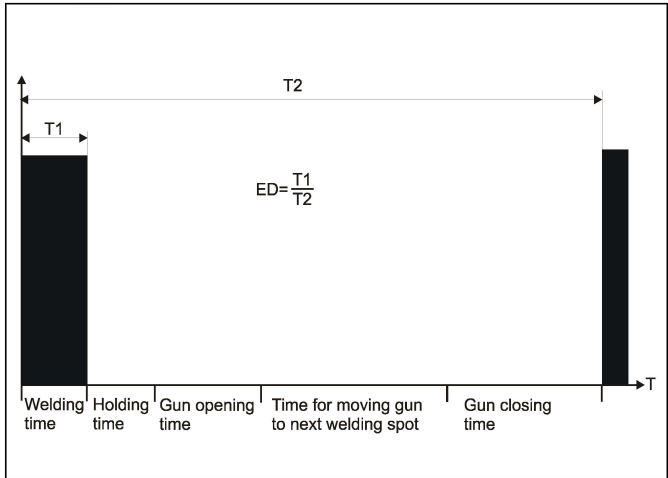


Fig. 5 Definition of ED for typical welding sequence

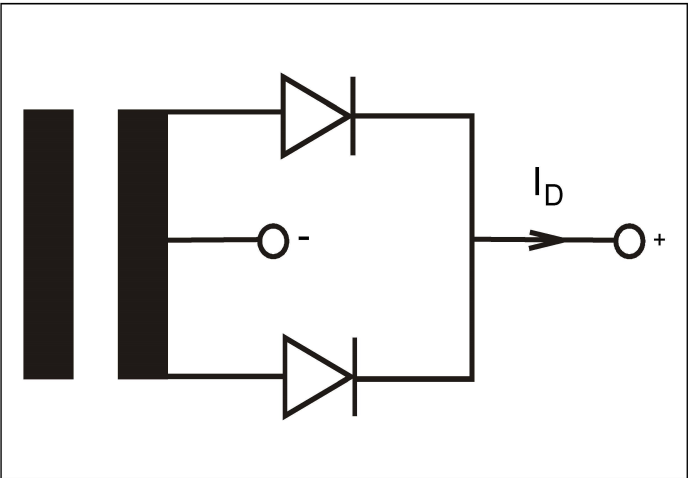


Fig. 6 Definition of ID for single-phase centre tap

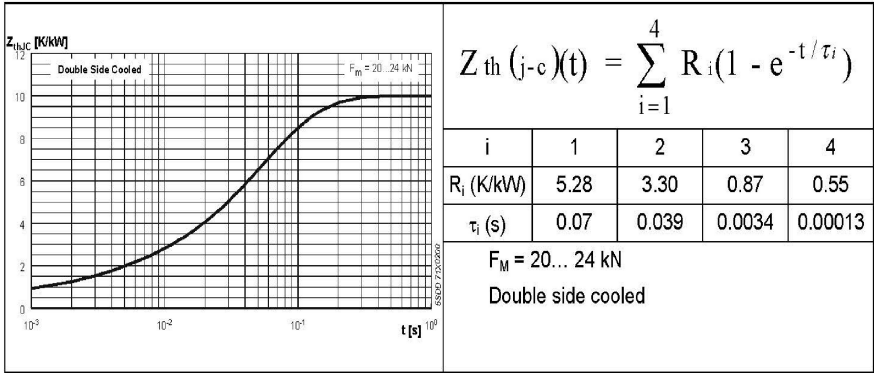


Fig. 7 Transient thermal impedance (junction-to-case) vs. time in analytical and graphical forms.