Standard recovery Diode

Features

1.Medium voltage, high current rectifier diodes with slim package for lowest thermal resistance
2. Low power dissipation
3. Especially suited for water cooling
4. Forward selections for paralleling available

Typical Applications

- Welders
- Electrode plating

Ordering code

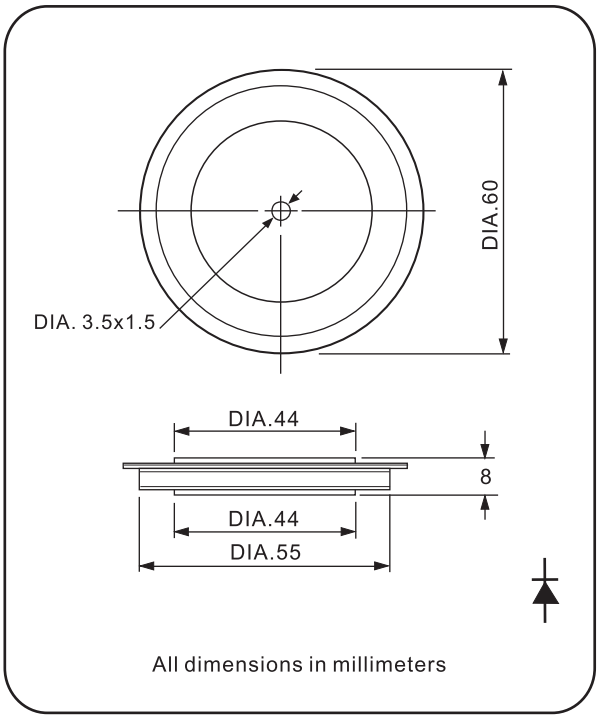
D	7100	W	XX
(1)	(2)	(3)	(4)

(1) stands for disc types diodes

(2) Maximum average forward current , A

(3) peakage style

(4) Voltage code , V (code x 100 = V_{RRM})



All dimensions in millimeters

Electrical Characteristics

Symbol	Parameter	Condition	Value	Unit
$I_{F(AV)}$	Average forward current	180° half sine wave , 50 Hz Double side cooled , T_C=85°C	7100	A
V_{RRM}	Repetitive peak reverse voltage	t_p=10 ms V_{RSM}= V_{RRM}+100V	200 to 600	V
I_{RRM}	Repetitive peak reverse current	V_R=V_{RRM}	50	mA
I_{FSM}	Surge forward current	10ms half sine wave V_R=0.6V_{RRM}	55000	A
I^2t	I^2t for fusing coordination		15100	KA^2S
V_{FO}	Threshold voltage	Approximation for I_F=5000~15000A	0.74	V
r_F	Slope resistance		0.026	mΩ
V_{FM}	Peak on-state voltage	Forward current=7100A , T_J=25°C	1.05	V
$R_{th(j-c)}$	Thermal resistance(junction to case)	At 180 sine, Double side cooled Clamping force 24.0 KN	0.01	°C/W
$R_{th(c-hs)}$	Thermal resistance(case to heatsink)		0.005	°C/W
T_{stg}	Storage temperature range		-40 to 170	°C
T_j	Max.junction operating temperature range		-40 to 150	°C
W_t	Approximate weight		140	g
F_m	Mounting force		19 to 26	KN

Fig.1 Transient thermal impedance(junction to case) vs. Time

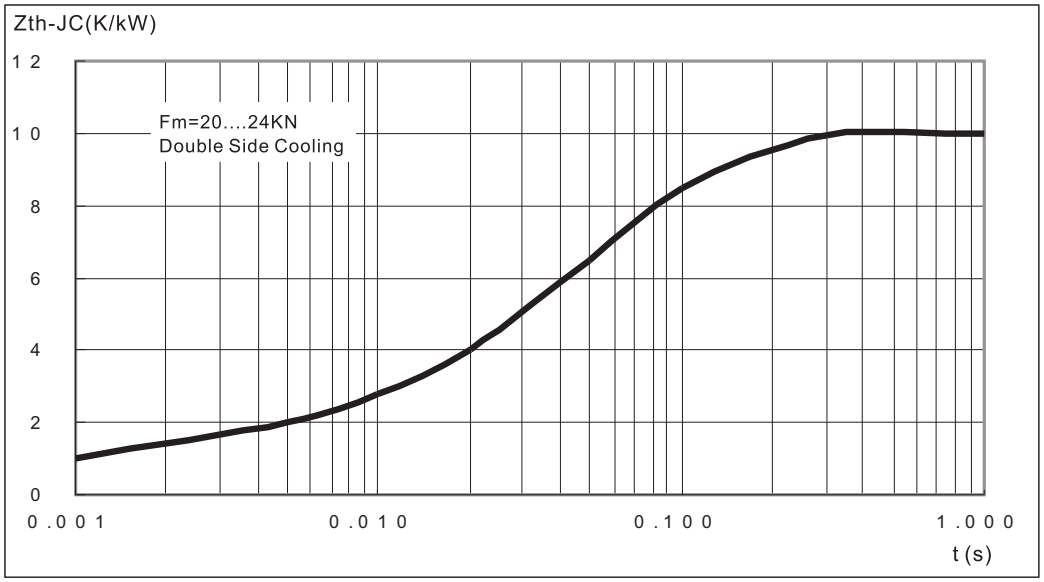


Fig.2 Forward current vs. Forward voltage

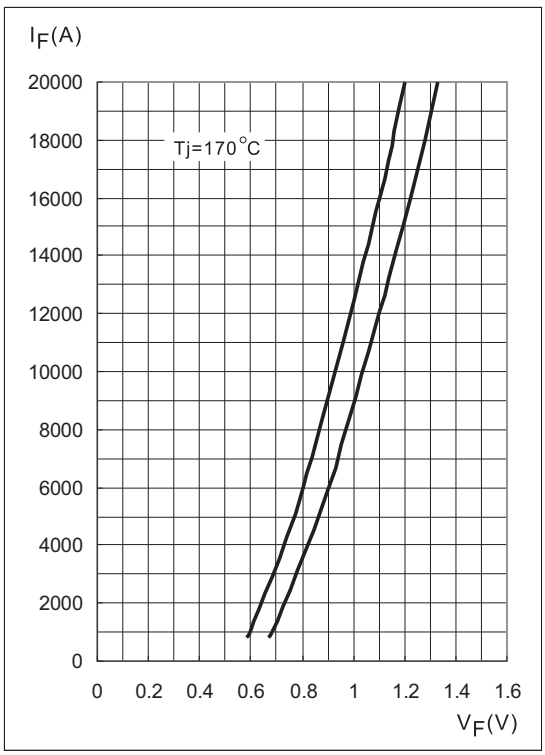


Fig.3 Surge current and fusing integral vs. Pulse width (non-repetitive)

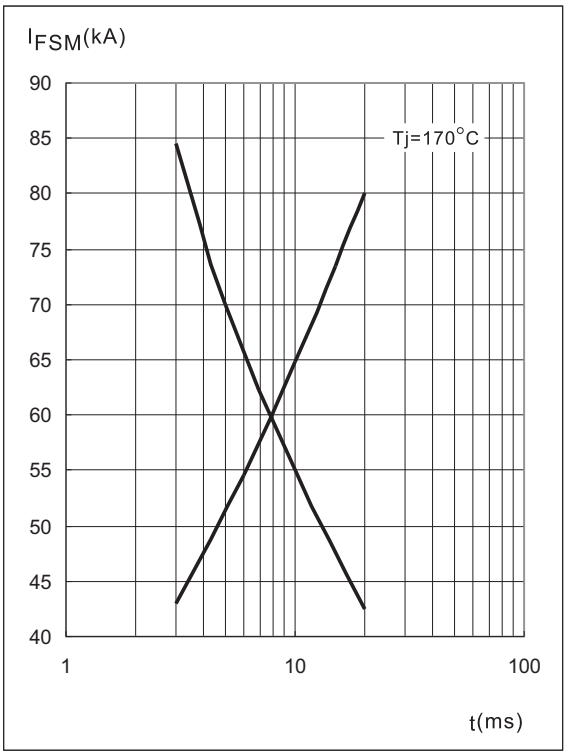


Fig.4 DC-output current with single-phase centre tap

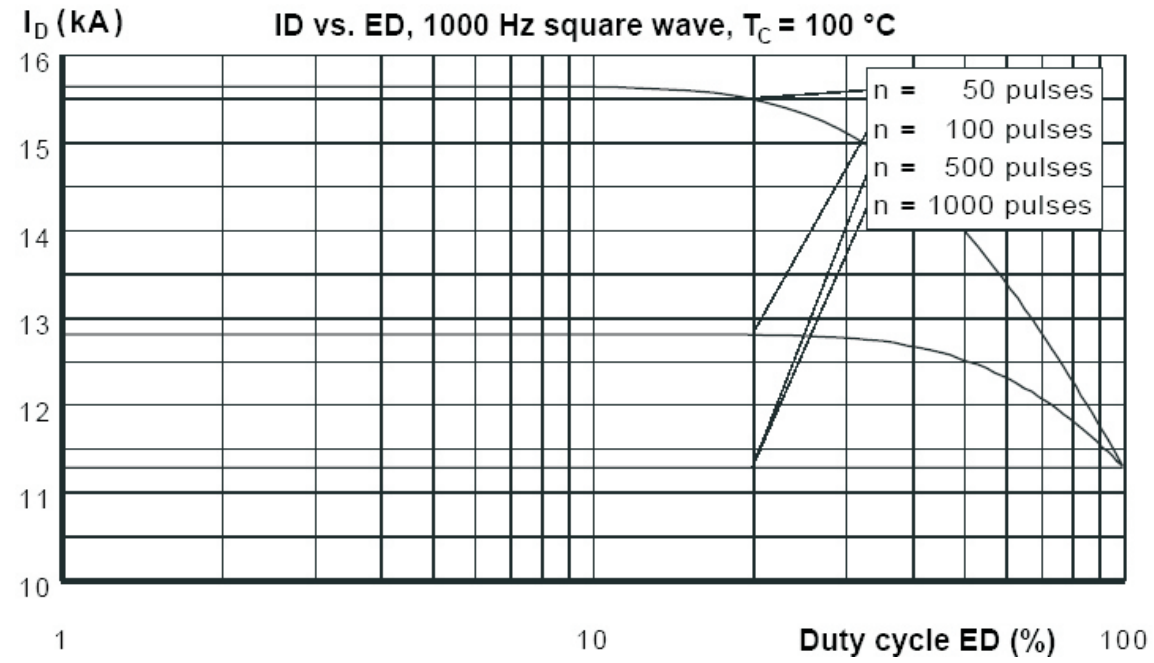


Fig.5 DC-output current with single-phase centre tap