

## 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
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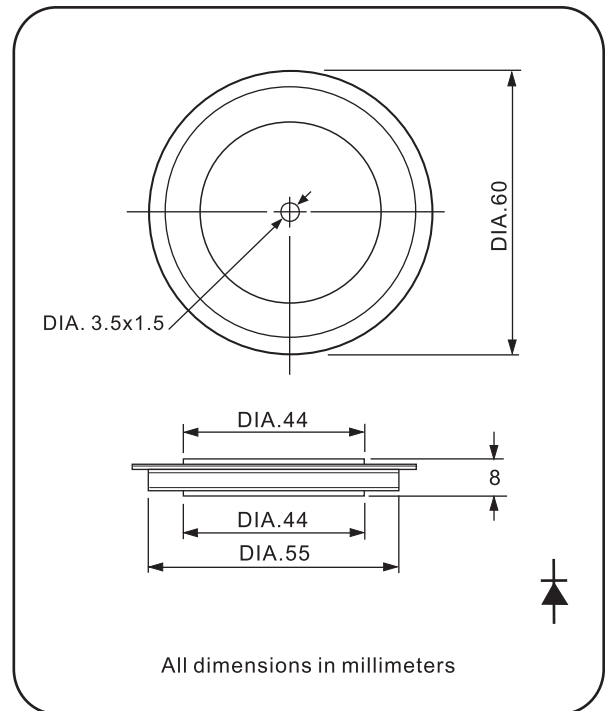
(1) (2) (3) (4)

(1) stands for disc types diodes

(2) Maximum average forward current, A

(3) package style

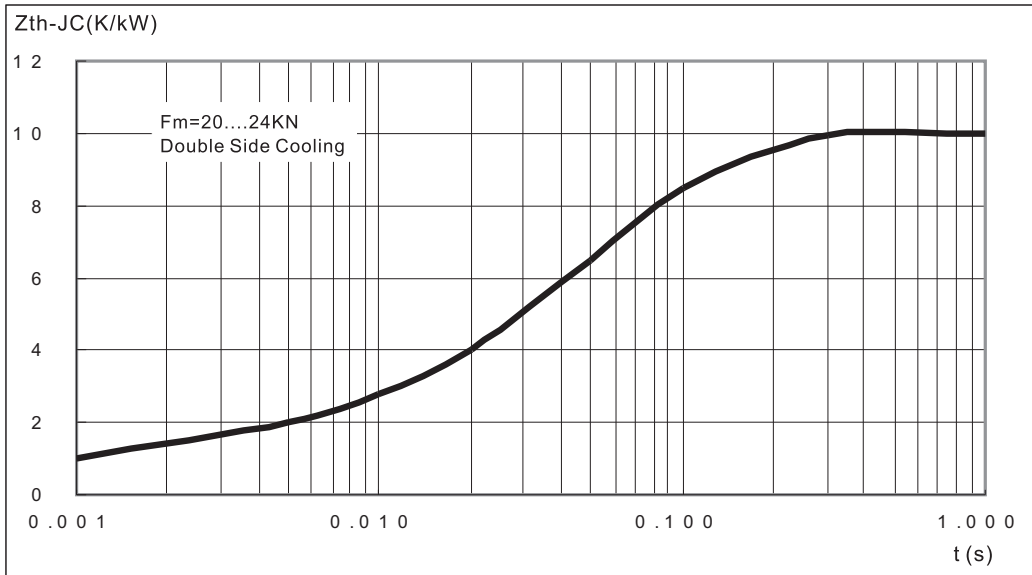
(4) Voltage code, V (code x 100 =  $V_{RRM}$ )



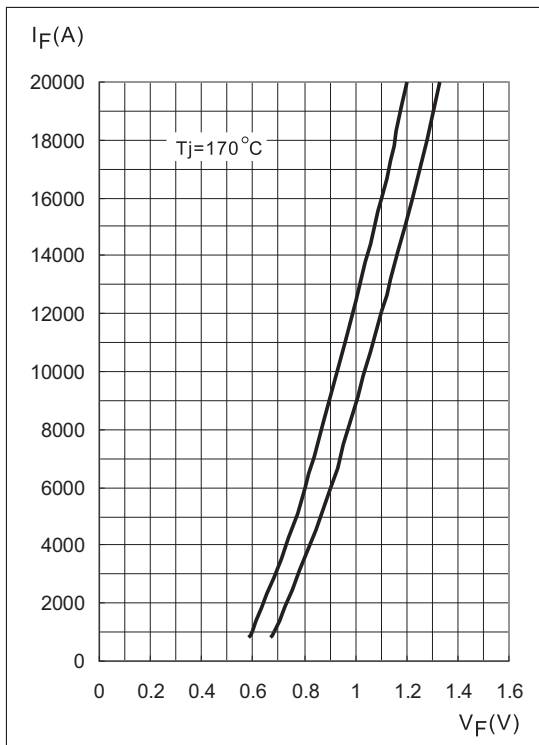
### Electrical Characteristics

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

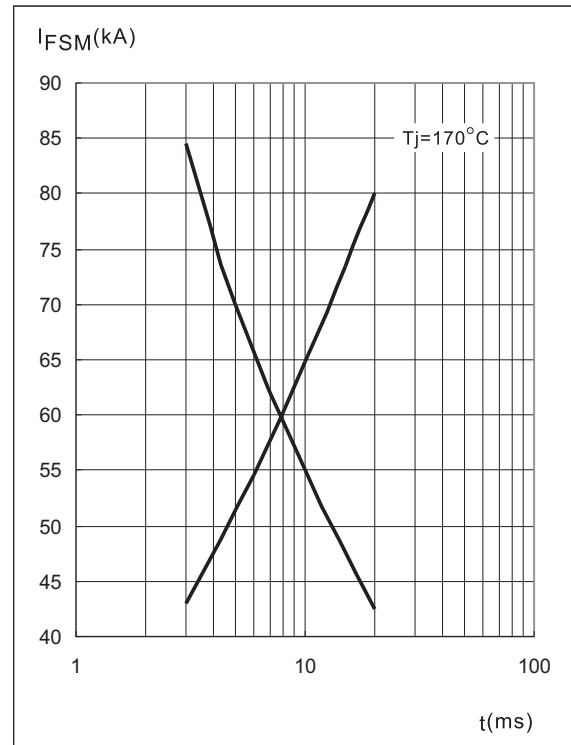
**Fig.1 Transient thermal impedance(junction to case) vs. Time**



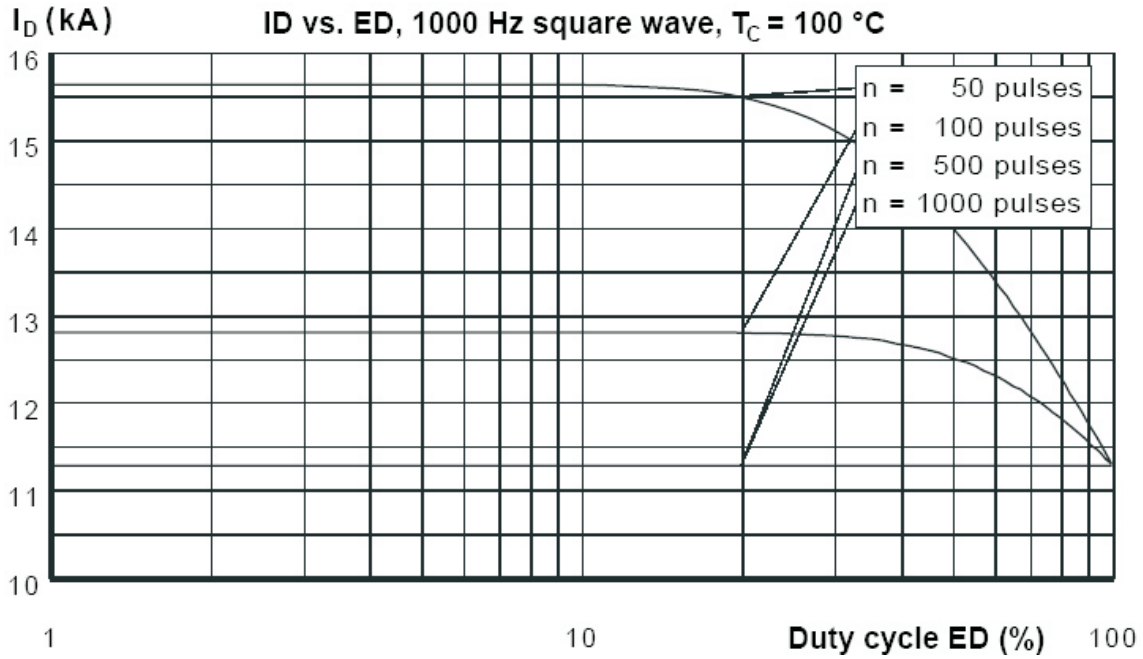
**Fig.2 Forward current vs. Forward voltage**



**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**

