

Standard recovery Diode

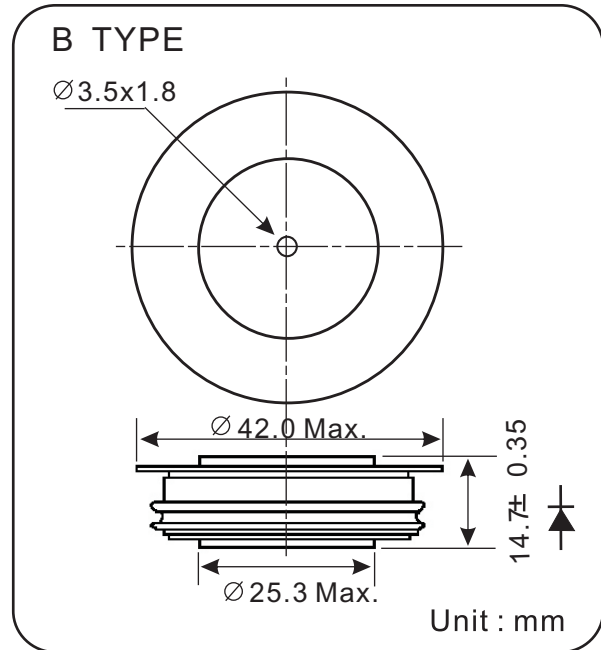
Features

1. Voltage rating up to 2400V
2. Typical application
 - All-purpose rectifier diodes
 - Industrial high power drives
 - Welders
 - Electrode plating

Ordering code

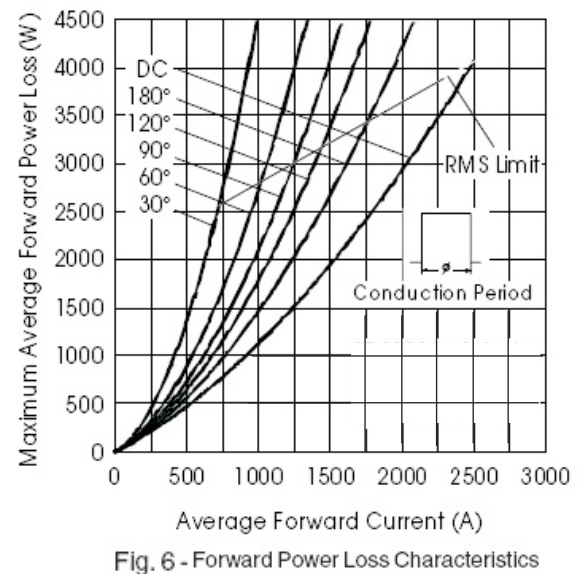
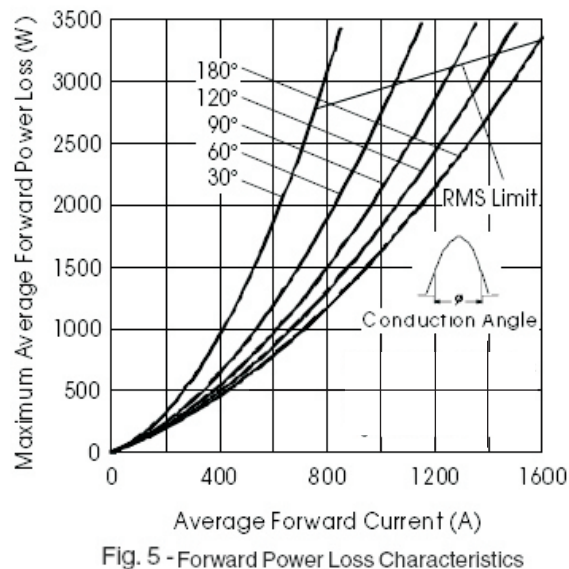
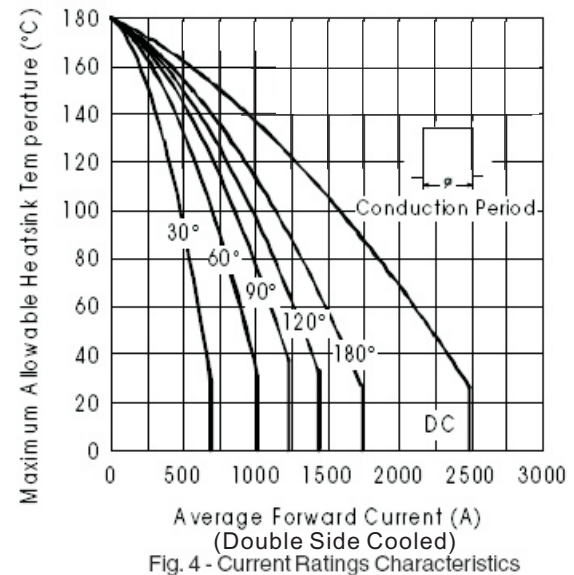
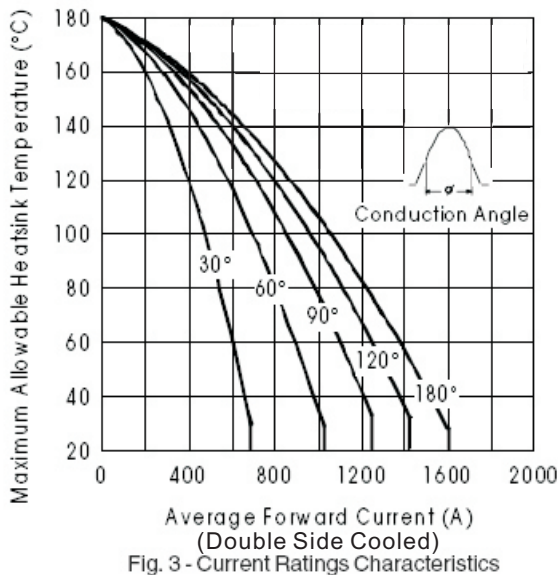
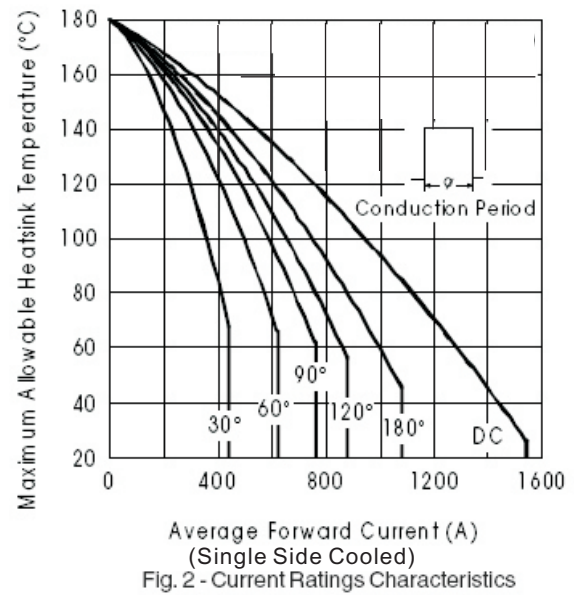
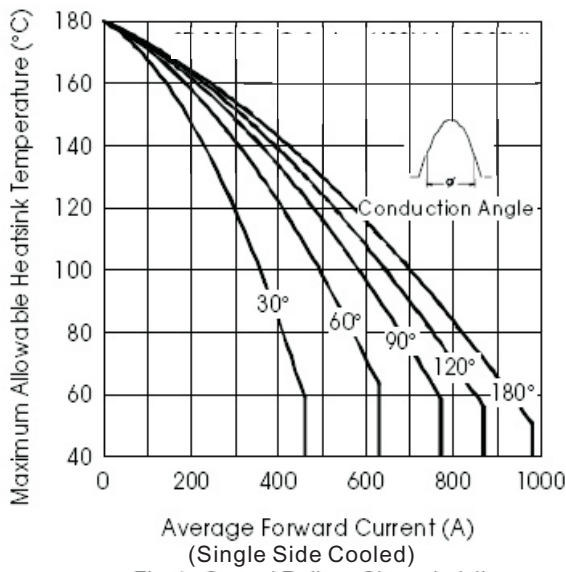
D	1400	B	xx
(1)	(2)	(3)	(4)

- (1) stands for disc types diodes
 (2) Maximum average forward current , A
 (3) package style : B
 (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 , $T_c=55^\circ\text{C}$	1400	A
$I_{F(RMS)}$	R.M.S. Forward current	Double side cooled , $T_{HS}=25^\circ\text{C}$	2500	A
V_{RRM}	Repetitive peak reverse voltage	$t_p=10\text{ ms}$ $V_{RMS} = V_{RRM} \times 1.1$	400 to 2400	V
I_{RRM}	Repetitive peak reverse current	@ $T_j=T_j \text{ MAX}$	15	mA
I_{FSM}	Surge forward current	$t=10\text{ms}$ NO voltage reapplied	13100	A
		$t=10\text{ms}$ 100% V_{RRM} reapplied	11000	A
I_t^2	I_t^2 for fusing coordination	$t=10\text{ms}$ NO voltage reapplied	850	KA ² S
		$t=10\text{ms}$ 100% V_{RRM} reapplied	600	KA ² S
$V_{F(TO)1}$	Low level value of threshold voltage	$16.7\% \times \pi \times I_{F(AV)} < 1 < \pi \times I_{F(AV)}$, $T_j=\text{max.}$	0.75	V
$V_{F(TO)2}$	High level value of threshold voltage	$1 > \pi \times I_{F(AV)}$, $T_j=\text{max.}$	0.92	V
r_{f1}	Low level value of forward slope resistance	$16.7\% \times \pi \times I_{F(AV)} < 1 < \pi \times I_{F(AV)}$, $T_j=\text{max.}$	0.35	mΩ
r_{f2}	High level value of forward slope resistance	$1 > \pi \times I_{F(AV)}$, $T_j=\text{max.}$	0.26	mΩ
V_{FM}	Peak on-state voltage	$I_{FM} = 3000\text{A}$, $F=14.7\text{ KN}$	1.31	V
T_{stg}	Storage temperature range		-55 ~200	°C
T_j	Max.junction operating temperature range		-40 ~180	°C
$R_{th(j-h)}$	Thermal resistance(junction to heatsink)	Double side cooled (DC)	0.038	°C/W
W_t	Approximate weight		250	g
F_m	Mounting force		9.8	KN



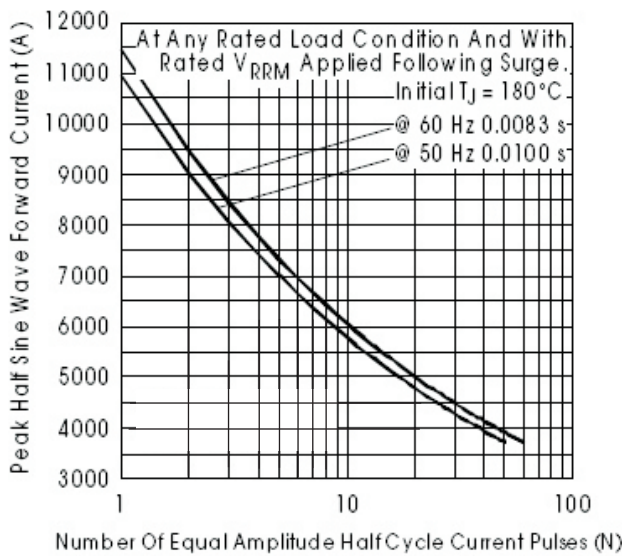


Fig. 7 - Maximum Non-Repetitive Surge Current Single and Double Side Cooled

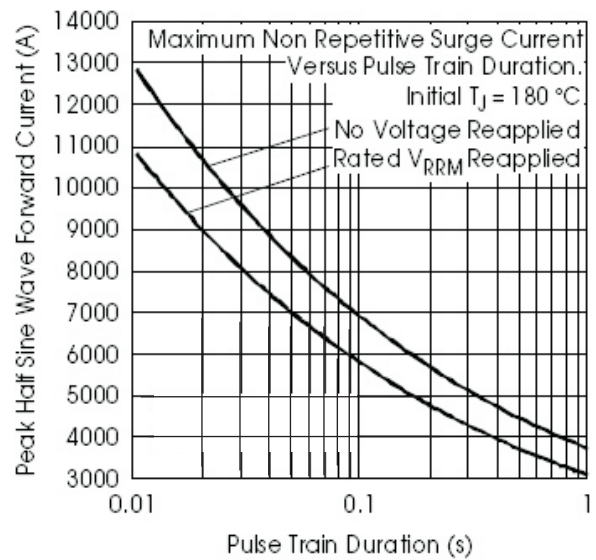


Fig. 8 - Maximum Non-Repetitive Surge Current Single and Double Side Cooled

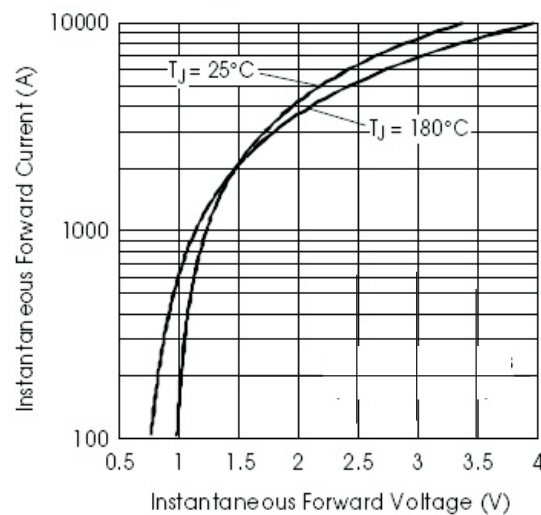


Fig. 9 - Forward Voltage Drop Characteristics

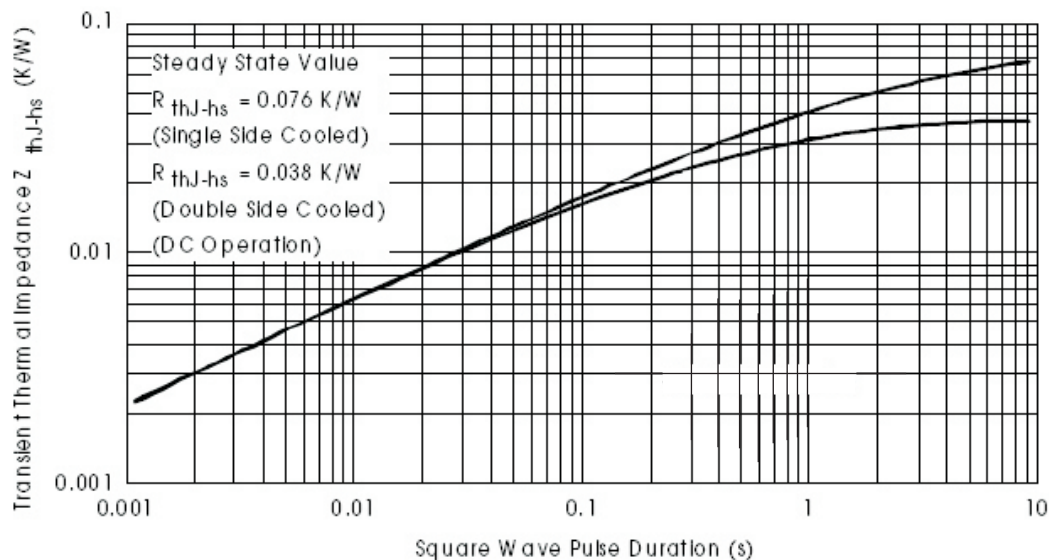


Fig. 10 - Thermal Impedance Z_{thJC} Characteristics