

Ceramic Capsule Silicon Diodes Type CXC400  
 800 amperes average: up to 1500 volts  $V_{RRM}$

**RATINGS** Maximum values at 190°C Tj unless stated otherwise

RATING	CONDITIONS	SYMBOL	
Average forward current	Half sine wave { 55°C heatsink temperature (double side cooled) 100°C heatsink temperature (single side cooled)	$I_{F(AV)}$	800A 380A
RMS current	25°C heatsink temp., double side cooled	$I_{F(RMS)}$	1420A
DC forward current	25°C heatsink temp., double side cooled	$I_F$	1240A
Peak one-cycle surge (non repetitive) of forward current	8.3ms duration { 60% $V_{RRM}$ re-applied $V_R \leq 10$ volts	$I_{FSM(1)}$ $I_{FSM(2)}$	7950A 8745A
Maximum permissible surge energy	8.3ms duration { 60% $V_{RRM}$ re-applied $V_R \leq 10$ volts 3ms duration $V_R \leq 10$ volts	$I^2 t (1)$ $I^2 t (2)$	272570A <sup>2</sup> s 329800A <sup>2</sup> s 245000A <sup>2</sup> s
Operating temperature range		$T_{hs}$	-30 + 190°C
Storage temperature		$T_{stg}$	-40 + 200°C

**CHARACTERISTICS** Maximum values at 190°C Tj unless stated otherwise

CHARACTERISTIC	CONDITIONS	SYMBOL	
Peak forward voltage drop	At 1930A, $I_{FM}$	$V_{FM}$	1.86V
Forward conduction threshold voltage		$V_0$	0.8V
Forward conduction slope resistance		$r$	0.55mΩ
Peak reverse current	At $V_{RRM}$	$I_{RRM}$	15mA
Thermal resistance junction to heatsink for a device with a maximum forward volt-drop characteristic.	Capsule Single side cooled Double side cooled	$R_{th(j-hs)}$	0,18°C/W 0,09°C/W

VOLTAGE CODE →	02	04	06	08	10	12	14	15	
Repetitive voltage $V_{RRM}$	200	400	600	800	1000	1200	1400	1500	
Non-repetitive voltage $V_{RSM}$	300	500	700	900	1100	1300	1500	1600	

**ORDERING INFORMATION** (Please quote device code as explained below – 10 digits)

S	W	●	●	C	X	C	4	0	0
FIXED BASIC CODE	VOLTAGE CODE (see above)			FIXED OUTLINE CODE DO – 200 AA cold weld capsule			FIXED TYPE CODE		

Typical code SW12CXC400 = 1200V<sub>RRM</sub> type CXC400 diode

*In the interest of product improvement Westcode reserves the right to change specifications at any time without notice.*

DC400 41 DE 9709955 0001798 9

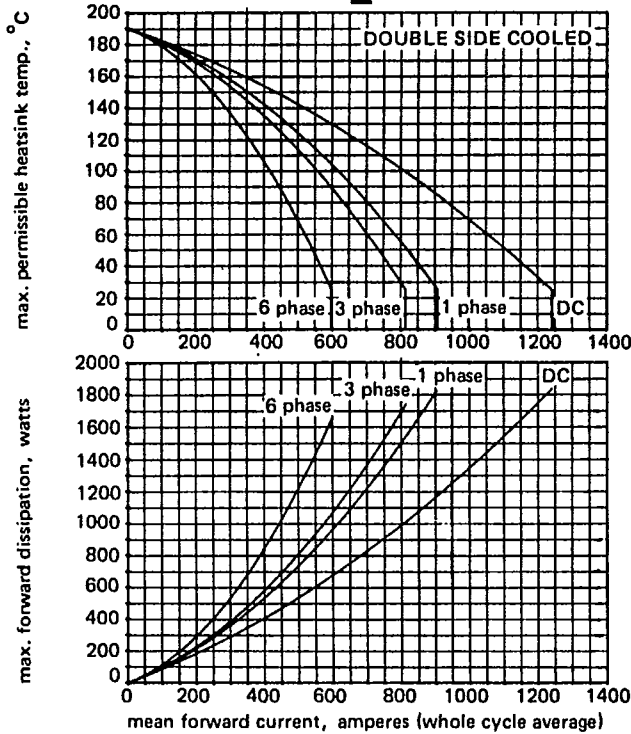


Figure 1 Dissipation / sink temperature v. mean forward current

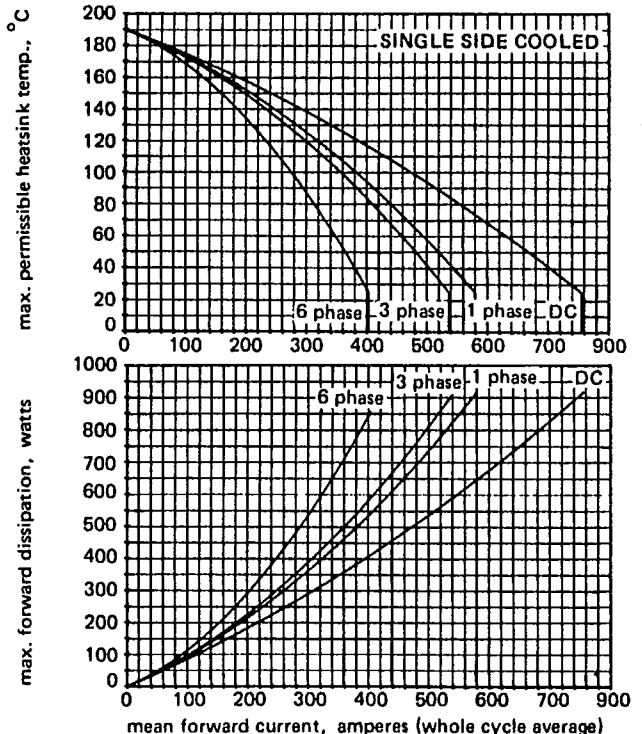


Figure 2 Dissipation / sink temperature v. mean forward current

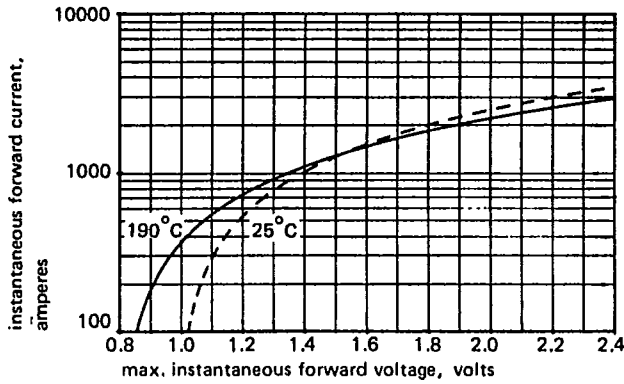


Figure 3 Forward voltage characteristic

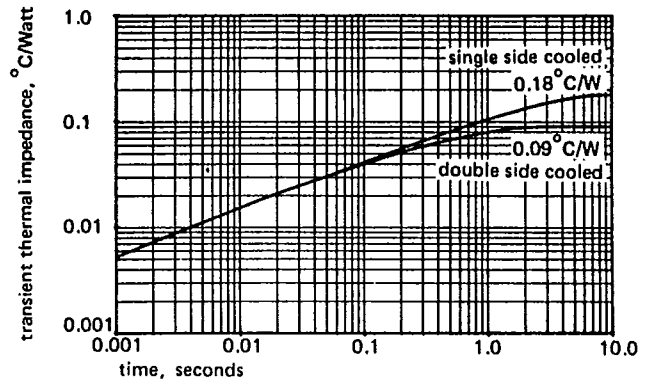


Figure 4 Transient thermal impedance, junction to heatsink

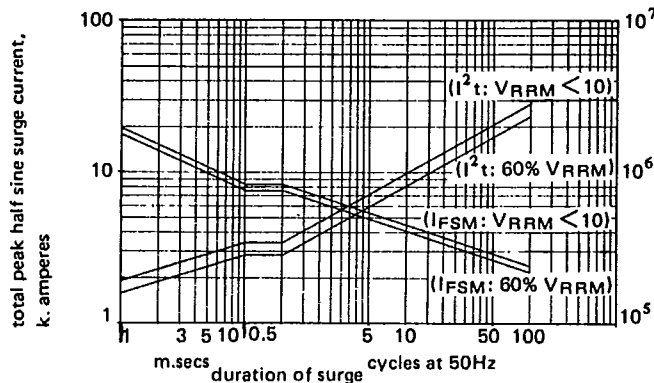
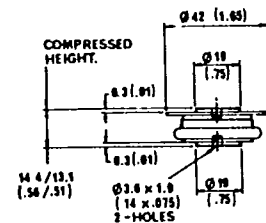


Figure 5 Max. non repetitive surge current at initial junction temperature 190°C



DO - 200AA

Dimensions in mm (inches)

Mounting Force: 330 - 550 Kg

Weight: 70 grams

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