

WESTCODE SEMICONDUCTORS

Series

SWxxC/DXC27C

Capsule Rectifier Diode

Consists of a diffused silicon element mounted in an hermetic ceramic cold welded capsule. Available in industry standard and thin housings.

Ratings	Unless otherwise stated $T_j = 190^\circ\text{C}$	Maximum Limits							Units
	Voltage Codes	02	04	06	08	10	12	14	
V_{RRM}	Repetitive peak reverse voltage.	200	400	600	800	1000	1200	1400	V
V_{RSM}	Non-repetitive peak reverse voltage.	300	500	700	900	1100	1300	1500	V

$I_{F(AV)}$	Average forward current	Half sine wave	$\left\{ \begin{array}{l} 55^\circ\text{C heatsink temperature (double side cooled)} \\ 100^\circ\text{C heatsink temperature (single side cooled)} \end{array} \right.$					5700	A
$I_{F(RMS)}$	R.M.S forward current		25°C heatsink temperature, double side cooled					2700	A
I_F	Continuous forward current		25°C heatsink temperature, double side cooled					10160	A
$I_{FSM(1)}$	Peak one-cycle surge	10ms duration, 60% V_{RRM} re-applied						8810	A
$I_{FSM(2)}$	Peak one-cycle surge	10ms duration, $V_R \leq 10$ volts						53.0	KA
$I^2 t_{(2)}$	Maximum permissible surge energy	10ms duration, $V_R \leq 10$ volts						59.0	KA
		3ms duration, $V_R \leq 10$ volts						17.4×10^6	$A^2 s$
								13.5×10^6	$A^2 s$
T_j	Operating temperature range							-55 to $+190$	$^\circ\text{C}$
T_{stg}	Storage temperature range							-55 to $+200$	$^\circ\text{C}$

Characteristics	Unless otherwise indicated $T_j = 190^\circ\text{C}$			
V_{FM}	Peak forward voltage	$I_F = 6800$ A	1.05	V
V_O	Forward conduction threshold voltage		0.65	V
r	Forward conduction slope resistance		0.059	$m\Omega$
I_{RRM}	Repetitive peak reverse current	At V_{RRM}	60.0	mA
$R_{th(j-hs)}$	Thermal resistance, junction to heat sink.	Double side cooled	0.016	$^\circ\text{C/W}$
		Single side cooled	0.032	$^\circ\text{C/W}$

Ordering Information (Please quote device code as explained below - 10 digits)

S	W	• •	• X C	2 7 C
Fixed type code	Voltage Code (see ratings)		CXC - Thick Housing DXC - Thin Housing	Fixed Type Code

Typical code : SW10CXC27C, 1000 V_{RRM}

Details of a full range of capsule mounting clamps are available - ask for brochure.

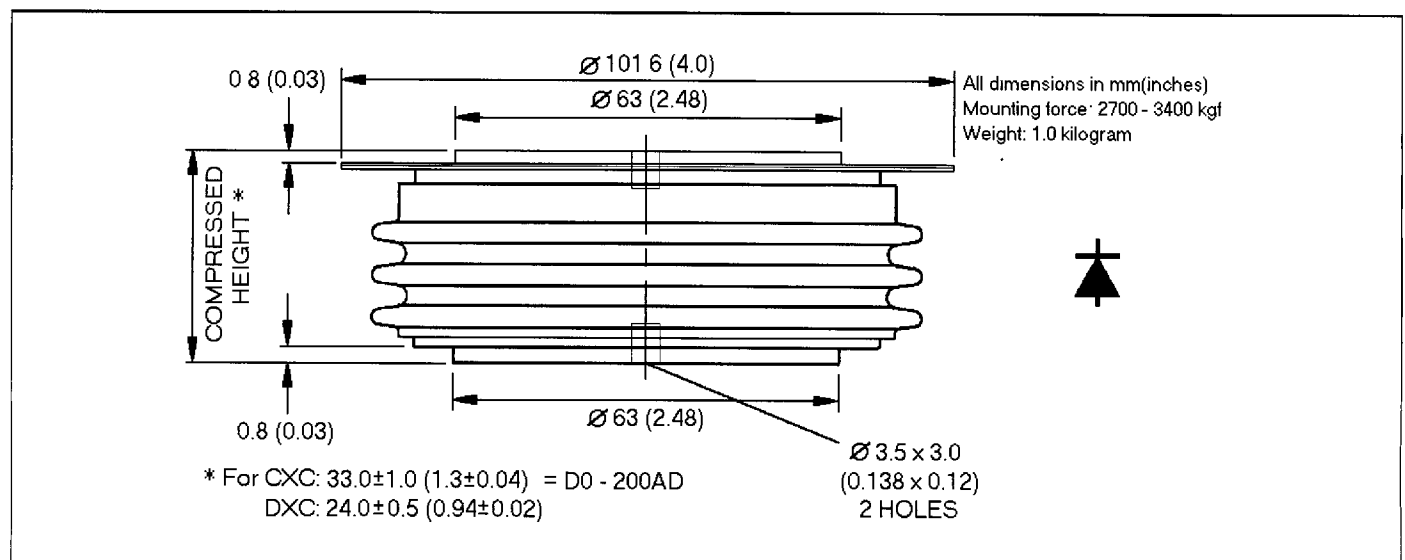


Figure 1. Dissipation/Sink Temperature v. Mean Forward Current.

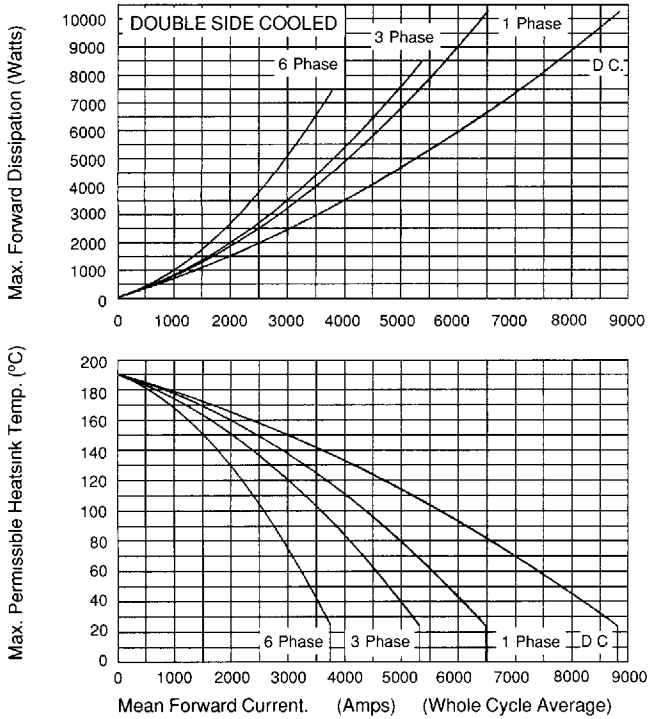


Figure 2. Dissipation/Sink Temperature v. Mean Forward Current.

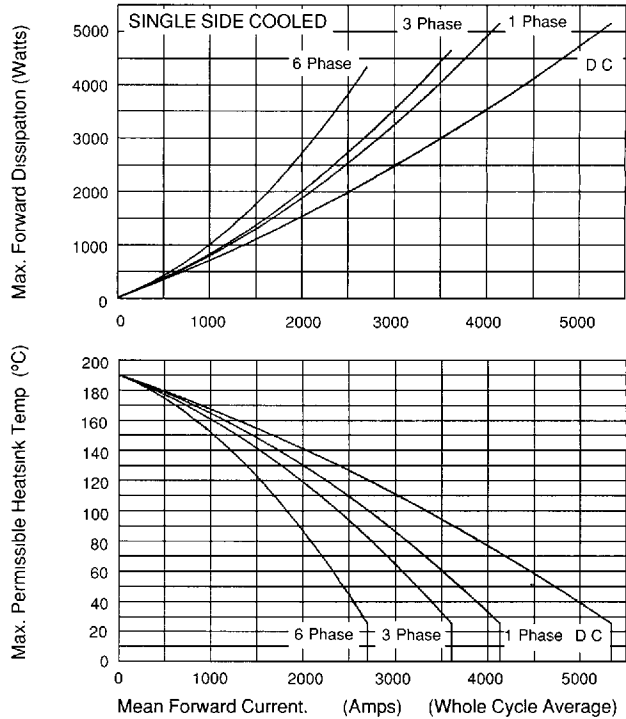


Figure 3. Limit Forward Characteristic at 190°C.

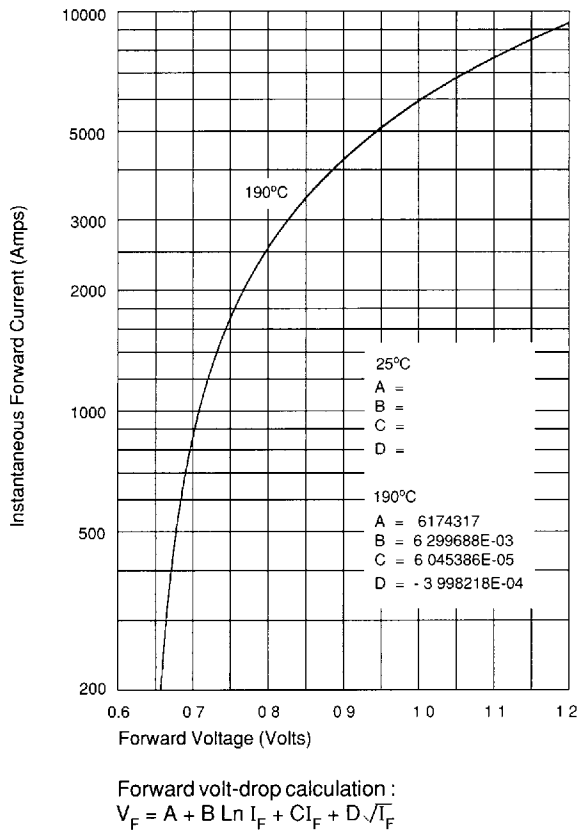


Figure 4. Junction to Sink Transient Thermal Impedance.

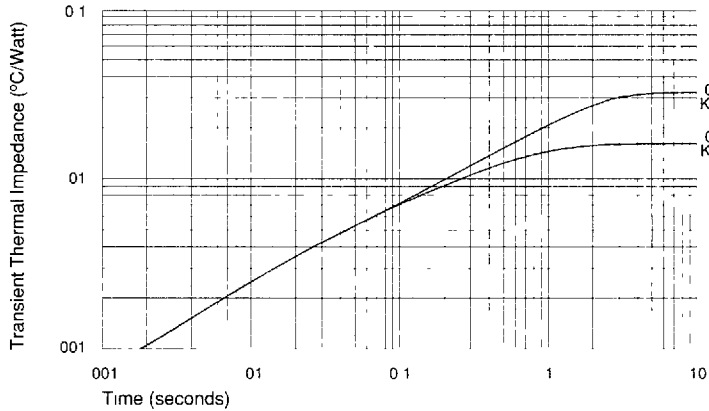
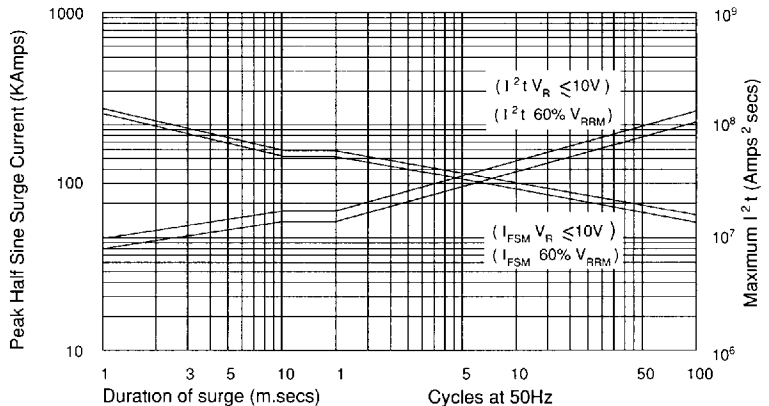


Figure 5. Non-Repetitive Surge Current at Initial Junction Temperature 190°C.



In the interest of product improvement, Westcode reserves the right to change specifications at any time without notice. © Westcode Semiconductors Ltd.



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