

# WESTCODE SEMICONDUCTORS



Series

SWxxC/DXC22C

## 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
		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	55°C heatsink temperature (double side cooled)	5440	A	
			100°C heatsink temperature (single side cooled)	2600	A	
$I_{F(RMS)}$	R.M.S forward current	25°C heatsink temperature, double side cooled			9700	A
$I_F$	Continuous forward current	25°C heatsink temperature, double side cooled			8470	A
$I_{FSM(1)}$	Peak one-cycle surge	10ms duration, 60% $V_{RRM}$ re-applied		52.0	KA	
$I_{FSM(2)}$	Peak one-cycle surge	10ms duration, $V_R \leq 10$ volts		57.0	KA	
$I^2 t_{(2)}$	Maximum permissible surge energy	10ms duration, $V_R \leq 10$ volts		$16.2 \times 10^6$	$A^2 s$	
		3ms duration, $V_R \leq 10$ volts		$12.6 \times 10^6$	$A^2 s$	
$T_j$	Operating temperature range			-55 to + 190	°C	
$T_{stg}$	Storage temperature range			-55 to + 200	°C	

Characteristics		Unless otherwise indicated $T_j = 190^\circ\text{C}$		
$V_{FM}$	Peak forward voltage	$I_F = 6800$ A	1.11	V
$V_O$	Forward conduction threshold voltage		0.65	V
$r$	Forward conduction slope resistance		0.067	mΩ
$I_{RRM}$	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	°C/W
		Single side cooled	0.032	°C/W

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

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

Typical code : SW10CXC22C, 1000  $V_{RRM}$

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

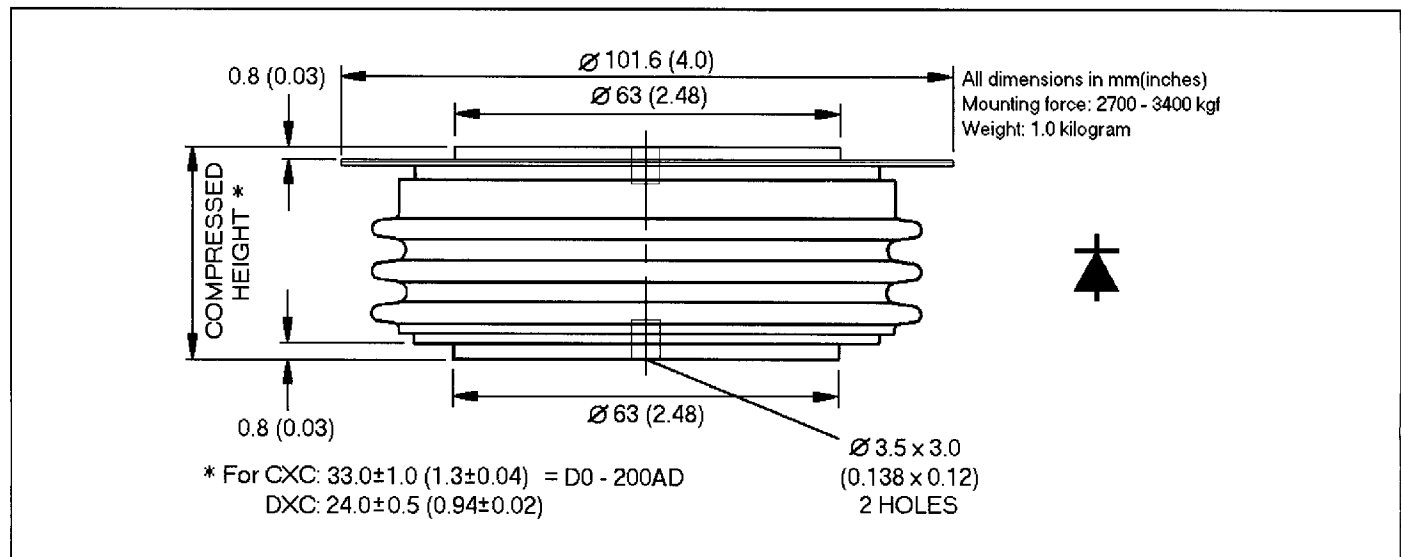


Figure 1. Dissipation/Sink Temperature v. Mean Forward Current.

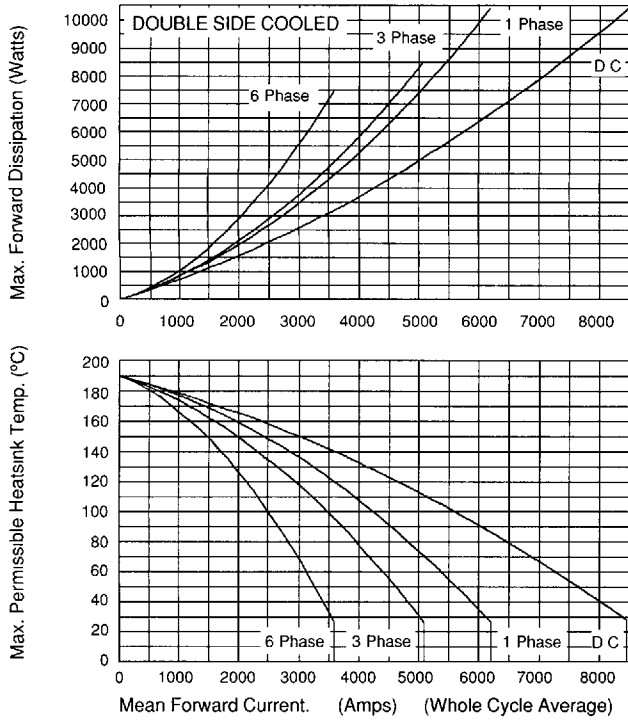


Figure 2. Dissipation/Sink Temperature v. Mean Forward Current.

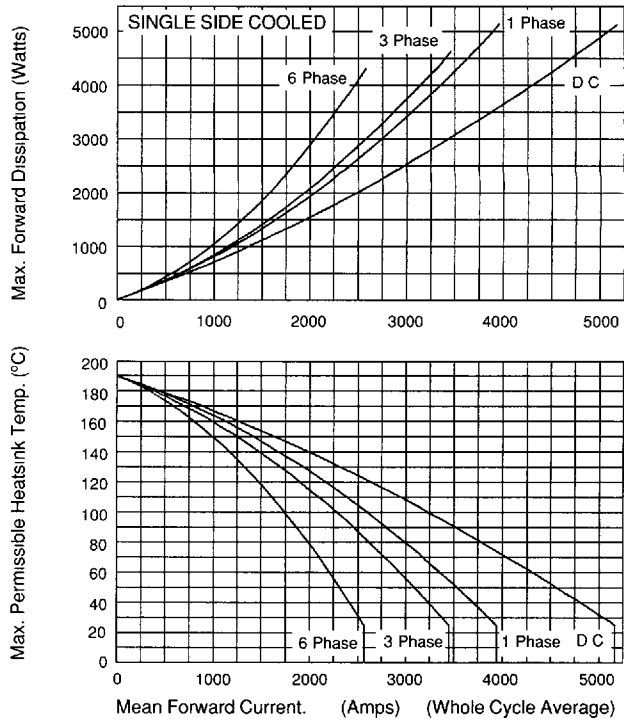


Figure 3. Limit Forward Characteristic at 190°C.

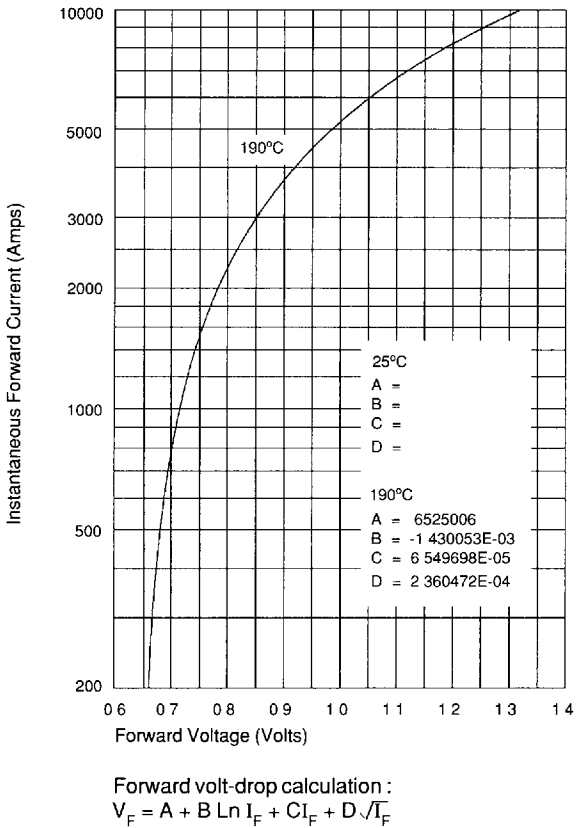


Figure 4. Junction to Sink Transient Thermal Impedance.

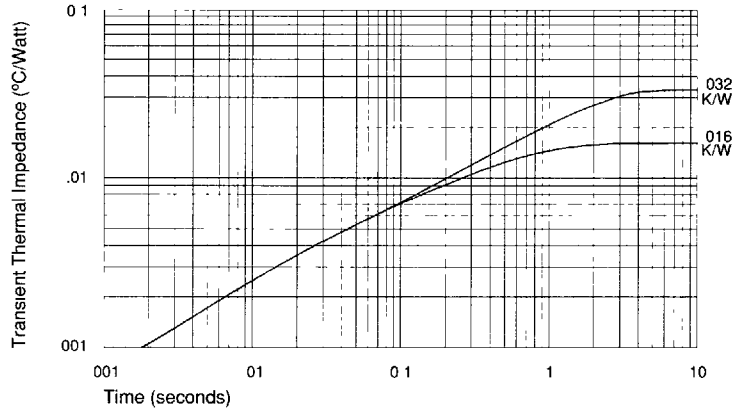
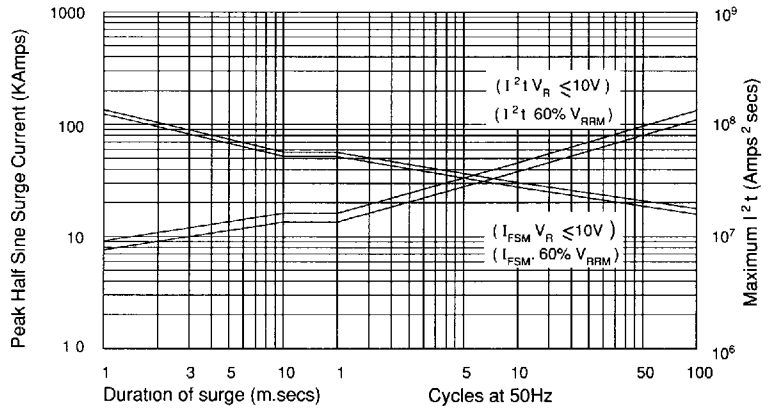


Figure 5. Non-Repetitive Surge Current at Initial Junction Temperature 190°C.



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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