



Technical Publication
DC635
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Ceramic Capsule Silicon Diodes Type CXC635
1420 amperes average: up to 3000 volts V_{RRM}

RATINGS Maximum values at 160°C, T_j, 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)	$I_{F(AV)}$	1420A
			630A
R.M.S current	25°C heatsink temperature, double side cooled	$I_{F(RMS)}$	2610A
DC forward current	25°C heatsink temperature, double side cooled	I_F	2460A
Peak one-cycle surge (non-repetitive) of forward current	8.3ms duration { 60% V_{RRM} re-applied $V_R \leq 10$ volts	$I_{FSM(1)}$ $I_{FSM(2)}$	13460A
			15470A
Maximum permissible surge energy	8.3ms duration { 60% V_{RRM} re-applied $V_R \leq 10$ volts	$I^2t(1)$ $I^2t(2)$	776000A ² s
			1037900A ² s
Operating temperature range	3ms duration $V_R \leq 10$ volts	T_{hs} T_{stg}	790000A ² s
			-30 +160°C
Storage temperature			-40 +185°C

CHARACTERISTICS Maximum values at 160°C, T_j, unless stated otherwise

CHARACTERISTIC	CONDITIONS	SYMBOL	
Peak forward voltage drop	At 3090A, I_{FM}	V_{FM}	1.87V
Forward conduction threshold voltage		V_O	0.87V
Forward conduction slope resistance		r	0.323mΩ
Peak reverse current	At V_{RRM}	I_{RRM}	30mA
Thermal resistance, junction to heat sink for a device with a maximum forward volt-drop characteristic	Capsule Single side cooled Double side cooled	$R_{th(j-hs)}$	0.065°C/W
			0.033°C/W

VOLTAGE CODE	→	24	26	28	30				
Repetitive voltage	V_{RRM}	2400	2600	2800	3000				
Non-repetitive voltage	V_{RSM}	2500	2700	2900	3100				

ORDERING INFORMATION

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

S	W	●	●	C	X	C	6	3	5
Fixed basic code	Voltage Code (see above)			Fixed outline code DQ-200 AB cold weld capsule			Fixed type code		

Typical code: SW28CXC635 = 2800V_{RRM} type CXC635 diode

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

