



# CKKD 570-700 Diode/Diode Series

570 - 700 Amps, Up to 2800 Volts  
Diode Module

## Features:

- High Voltage
- Industrial Standard Package
- 3000V<sub>RMS</sub> Isolating Voltage
- Electrically Isolated Base Plate

## ELECTRICAL CHARACTERISTICS AND RATINGS

### MAJOR RATINGS & CHARACTERISTICS

Parameter	Value		Units	
Type Number	<b>CKKD 570</b>	<b>CKKD 700</b>		
$I_{F(AV)}$ or $I_{F(AV)}$ @ $T_C$	570	701	A	
	100		°C	
$I_{F(RMS)}$	895	1100	A	
$I_{FSM}$	(50Hz)	15000	22500	A
$I^2t$	(50Hz)	1125	2531	kA <sup>2</sup> s
$V_{DRM} - V_{RRM}$	1200 to 2800	1200 to 2200	V	
$T_J$	-40 to +125	-40 to +125	°C	



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### VOLTAGE RATINGS

Part Number	Voltage Code	$V_{RRM}$ Max. Repetitive Peak Reverse Voltage V	$V_{RSM}$ Max. Non-repetitive Peak Reverse Voltage V	$I_{RD}$ Max. @ 125°C mA
CKKD 570	12	1200	1300	40
	14	1400	1500	
	16	1600	1700	
	18	1800	1900	
	20	2000	2100	
	22	2200	2300	
	24	2400	2500	
	28	2800	2900	



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Part Number	Voltage Code	$V_{RRM}$ Max. Repetitive Peak Reverse Voltage V	$V_{RSM}$ Max. Non-repetitive Peak Reverse Voltage V	$I_{RD}$ Max. @ 125°C mA
CKKD 700	12	1200	1300	50
	14	1400	1500	
	16	1600	1700	
	18	1800	1900	
	22	2200	2300	

### FORWARD CONDUCTION

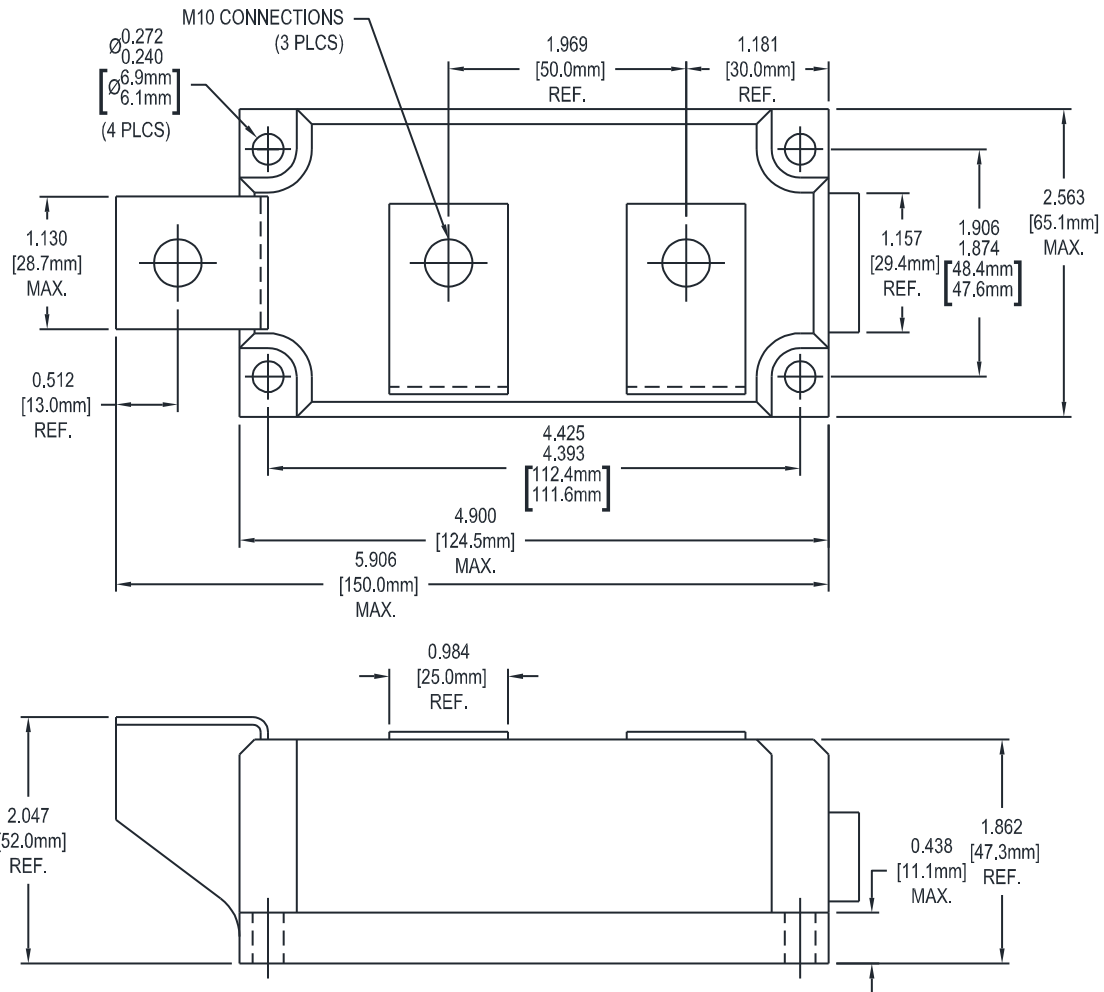
Parameter	Symbol	CKKD 570	CKKD 700	Test Conditions	Units
Max. average on-state current @ $T_C$	$I_{F(AV)}$	570	701	180° conduction, half sine wave	A
		100			°C
Max. RMS on-state current	$I_{F(RMS)}$	895	1100		A
Max. peak, one cycle on-state non-repetitive surge current	$I_{FSM}$	15000	22500	t = 10 ms	25°C Sinusoidal half wave, $T_J = T_{J\ MAX}$
Max. $I^2t$ for fusing	$I^2t$	1125	2531	t = 10 ms	
Max. threshold voltage	$V_{T(TO)}$	0.8	0.7	125°C	V
Slope resistance	$r_1$	0.38	0.28	125°C	mΩ
Max. forward voltage drop	$V_F$	1.3	1.3	$I_F = 2000, 25^\circ C$	V

### THERMAL AND MECHANICAL SPECIFICATIONS

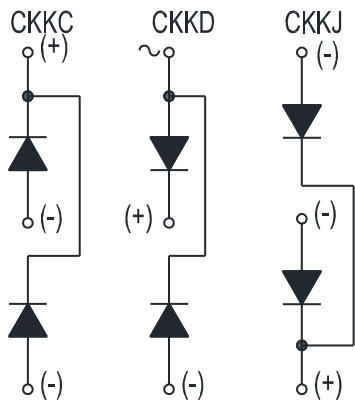
Parameter	Symbol	CKKD 570	CKKD 700	Test Conditions	Units
Max. operating temperature range	$T_J$	-40 to 125			°C
Max. storage temperature range	$T_{STG}$	-40 to 125			
Max. thermal resistance, junction to case per junction	$R_{thJC}$	0.065		Per arm	°C/W
Max. thermal resistance, case to heatsink	$R_{CS}$	0.02		Per arm	K/W
Mounting torque ± 10%	T	5 (12)		Mounting torque ±10%	Nm



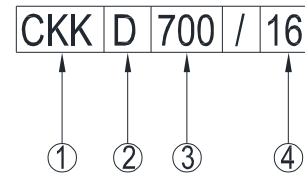
**OUTLINE DIAGRAM**



**CIRCUIT CONFIGURATION TABLE**



**ORDERING INFO TABLE**



- ① - MODULE TYPE
- ② - CIRCUIT CONFIGURATION
- ③ - CURRENT CODE
- ④ - VOLTAGE CODE

