

## isc Thyristors

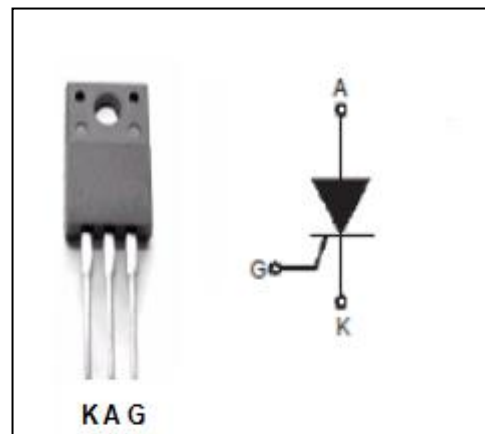
## CMA30E1600PN

## DESCRIPTION

- With TO-220F packaging
- Long-term stability
- Thyristor for line frequency
- Planar passivated chip
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Switching applications
- Line rectifying 50/60 Hz

ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}\text{C}$ )

SYMBOL	PARAMETER	MIN	UNIT
$V_{\text{DRM}}$	Repetitive peak off-state voltage	1700	V
$V_{\text{RRM}}$	Repetitive peak reverse voltage	1600	V
$I_{\text{T(AV)}}$	Average forward current $T_c=40^{\circ}\text{C}$	23	A
$I_{\text{T(RMS)}}$	RMS on-state current	36	A
$I_{\text{TSM}}$	Surge non-repetitive on-state current ( 1/2 cycle,sine wave; $T_c=45^{\circ}\text{C}$ )	260 280	A
$P_{\text{G(AV)}}$	Average gate power dissipation	0.5	W
$T_j$	Operating junction temperature	-40~125	$^{\circ}\text{C}$
$T_{\text{stg}}$	Storage temperature	-40~150	$^{\circ}\text{C}$

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ELECTRICAL CHARACTERISTICS ( $T_c=25^{\circ}\text{C}$  unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS		MIN	MAX	UNIT
$I_{RRM}$	Repetitive peak reverse current	$V_{RM}=V_{RRM}$ $V_{DM}=V_{DRM}$	$T_j=25^{\circ}\text{C}$		0.01	mA
$I_{DRM}$	Repetitive peak off-state current		$T_j=125^{\circ}\text{C}$		2	
$V_{TM}$	On-state voltage	$I_{TM}=30\text{A}$			1.42	V
$I_{GT}$	Gate-trigger current	$V_D=6\text{V}$ ; $R_L=100\ \Omega$			28	mA
$V_{GT}$	Gate-trigger voltage	$V_D=6\text{V}$ ; $R_L=100\ \Omega$			1.3	V
$R_{th(j-c)}$	Thermal resistance	Junction to case			2.5	$^{\circ}\text{C/W}$

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