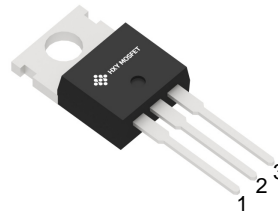




## Features

- Blocking voltage to 600V
- RMS on-state current to 6A
- General purpose switching



1. A1  
2. A2  
3. GATE

TO-220C

## Maximum Ratings (Ta=25°C unless otherwise noted)

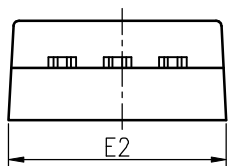
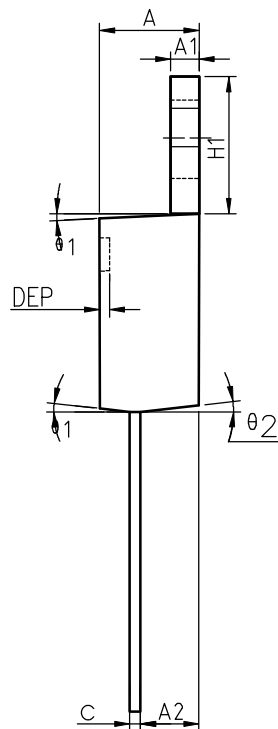
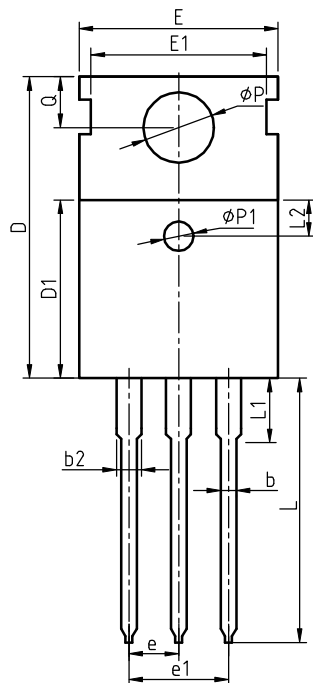
symbol	parameter		value	unit
$I_{T(RMS)}$	RMS on-state current (full sine wave)	$T_C=107^{\circ}\text{C}$	6	A
$I_{TSM}$	Non repetitive surge peak on-state current (full sine wave, $T_j=25^{\circ}\text{C}$ )	$t=20\text{ms}$	25	A
		$t=16.7\text{ms}$	27	
$I_{GM}$	Peak gate current		2	A
$P_{G(AV)}$	Average gate power dissipation	$T_j=125^{\circ}\text{C}$	0.5	W
$T_{stg}$	Storage junction temperature range		-40 to +150	$^{\circ}\text{C}$
$T_j$	Operating junction temperature range		-40 to +125	

## Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter		Symbol	Test conditions		Min	Max	Unit
Rated repetitive peak off-state/reverse voltage		V <sub>DRM</sub> , V <sub>RRM</sub>	I <sub>D</sub> =10μA		800		V
Rated repetitive peak off-state current		I <sub>DRM</sub> , I <sub>RRM</sub>	V <sub>D</sub> =620V			10	μA
On-state voltage		V <sub>TM</sub>	I <sub>T</sub> =5A			1.7	V
Gate trigger current	I	I <sub>GT</sub>	T <sub>2</sub> (+), G(+)	V <sub>D</sub> =12V R <sub>L</sub> =100Ω		10	mA
	II		T <sub>2</sub> (+), G(-)			10	mA
	III		T <sub>2</sub> (-), G(-)			10	mA
	IV		T <sub>2</sub> (-), G(+)			-	mA
Gate trigger voltage	I	V <sub>GT</sub>	T <sub>2</sub> (+), G(+)	V <sub>D</sub> =12V R <sub>L</sub> =100Ω		1.45	V
	II		T <sub>2</sub> (+), G(-)			1.45	V
	III		T <sub>2</sub> (-), G(-)			1.45	V
	IV		T <sub>2</sub> (-), G(+)			-	V
Holding current		I <sub>H</sub>	I <sub>T</sub> =100mA I <sub>G</sub> =20mA			20	mA



## Package Information TO-220C



COMMON DIMENSIONS

SYMBOL	MIN	NOM	MAX	MIN	NOM	MAX
A	4.40	4.57	4.70	0.173	0.180	0.185
A1	1.27	1.30	1.33	0.050	0.051	0.052
A2	2.35	2.40	2.50	0.093	0.094	0.098
b	0.77	0.80	0.90	0.030	0.031	0.035
b2	1.17	1.27	1.36	0.046	0.050	0.054
c	0.48	0.50	0.56	0.019	0.020	0.022
D	15.40	15.60	15.80	0.606	0.614	0.622
D1	9.00	9.10	9.20	0.354	0.358	0.362
DEP	0.05	0.10	0.20	0.002	0.004	0.008
E	9.80	10.00	10.20	0.386	0.394	0.402
E1	-	8.70	-	-	0.343	-
E2	9.80	10.00	10.20	0.386	0.394	0.402
e		2.54	BSC		0.100	BSC
e1		5.08	BSC		0.200	BSC
H1	6.40	6.50	6.60	0.252	0.256	0.260
L	12.75	13.50	13.65	0.502	0.531	0.537
L1	-	3.10	3.30	-	0.122	0.130
L2		2.50	REF		0.098	REF
P	3.50	3.60	3.63	0.138	0.142	0.143
P1	3.50	3.60	3.63	0.138	0.142	0.143
Q	2.73	2.80	2.87	0.107	0.110	0.113
θ 1	5°	7°	9°	5°	7°	9°
θ 2	1°	3°	5°	1°	3°	5°
θ 3	1°	3°	5°	1°	3°	5°



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