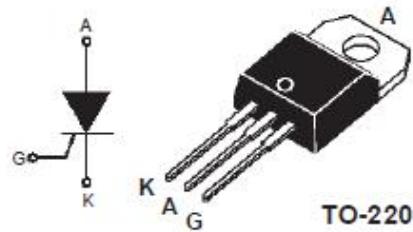


APPLICATIONS

- It is suitable to fit all modes of control found in applications such as overvoltage crowbar protection, motor control circuits in power tools and kitchen aids, in-rush current limiting circuits, capacitive discharge ignition, voltage regulation circuits etc.
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

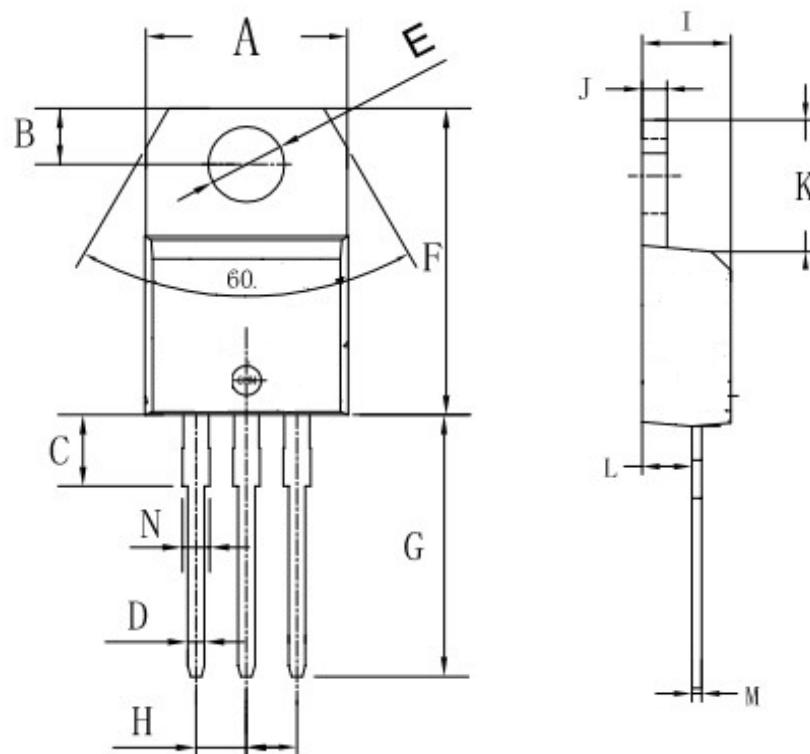

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	MIN	MAX	UNIT
V_{DRM}/V_{RRM}	Repetitive peak off-state voltage	500	650	V
$I_{T(AV)}$	Average on-stage current	7.5		A
$I_{T(RMS)}$	RMS on-state current	12		A
I_{TSM}	Surge non-repetitive on-state current $t_p=10\text{ms}$	100		A
$P_{G(AV)}$	Average gate power dissipation	0.5		W
T_j	Operating junction temperature	-40~125		$^\circ\text{C}$
T_{stg}	Storage temperature	-40~150		$^\circ\text{C}$

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
I_{RRM}/I_{DRM}	Repetitive peak off-state current	$V_{RM}=V_{RRM}, R_{GK}=220\Omega$,	$T_j=25^\circ\text{C}$	5	μA
			$T_j=125^\circ\text{C}$	2	mA
V_{TM}	On-state voltage	$I_{TM}=23\text{A}$		1.75	V
I_{GT}	Gate-trigger current	$V_D = 12\text{ V}; I_T = 0.1\text{ A}$		15	mA
V_{GT}	Gate-trigger voltage	$V_D = 12\text{ V}; I_T = 0.1\text{ A}$		1.5	V
$R_{th(j-c)}$	Thermal resistance	Junction to case		1.3	$^\circ\text{C}/\text{W}$

TO-220AB PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	9.8	10.4	0.385	0.409
B	2.65	3.1	0.104	0.122
C	2.8	4.2	0.110	0.165
D	0.7	0.92	0.027	0.036
E	3.75	3.95	0.147	0.155
F	14.8	16.1	0.582	0.633
G	13.05	13.6	0.513	0.535
H	2.4	2.7	0.094	0.106
I	4.38	4.61	0.172	0.181
J	1.15	1.36	0.045	0.053
K	5.85	6.82	0.230	0.268
L	2.35	2.75	0.092	0.108
M	0.35	0.65	0.013	0.025
N	1.18	1.42	0.046	0.055