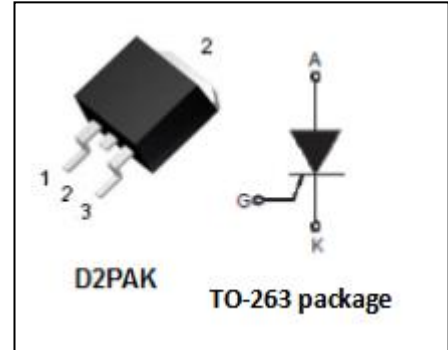


Thyristors

USF10G48

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	UNIT
V_{DRM}	Repetitive peak off-state voltage	400	V
V_{RRM}	Repetitive peak reverse voltage	400	V
$I_{\text{T(AV)}}$	Average on-state current	10	A
$I_{\text{T(RMS)}}$	RMS on-state current	16	A
I_{TSM}	Surge non-repetitive on-state current @ $f=50\text{Hz}$	160	A
$P_{\text{G(AV)}}$	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}	Repetitive peak reverse current	$V_{\text{RM}}=V_{\text{RRM}}$		10	μA
I_{DRM}	Repetitive peak off-state current	$V_{\text{DM}}=V_{\text{DRM}}$		10	μA
V_{TM}	On-state voltage	$I_{\text{TM}}=30\text{A}$		1.5	V
I_{GT}	Gate-trigger current	$V_{\text{D}}=6\text{V}; R_{\text{L}}=10\Omega$		10	mA
V_{GT}	Gate-trigger voltage	$V_{\text{D}}=6\text{V}; R_{\text{L}}=10\Omega$		1	V
$R_{\text{th(j-c)}}$	Thermal resistance	Junction to case		2.5	$^{\circ}\text{C/W}$

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