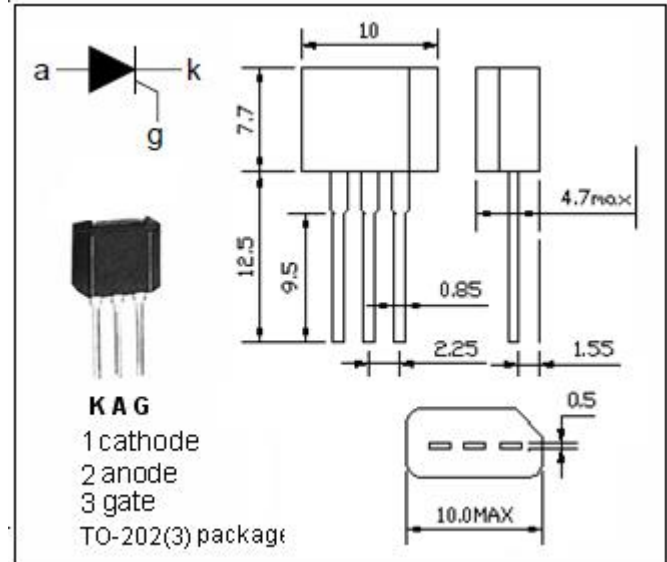


isc Thyristors
X0405MF
APPLICATIONS

- Highly sensitive triggering levels
- For capacitive discharge ignitions, motor control in kitchen aids, overvoltage crowbar protection in low power supplies applications.
- 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	600	V
V_{RRM}	Repetitive peak reverse voltage	600	V
$I_{\text{T(AV)}}$	On-state current 180° conduction angle	4	A
I_{TSM}	Non-repetitive surge peak on-state current $t = 20\text{ms}$	30	A
$P_{\text{G(AV)}}$	Average gate power dissipation $T_j = 125^{\circ}\text{C}$	0.2	W
T_j	Junction temperature	125	
T_{stg}	Storage temperature	-40 to + 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	$V_{\text{RM}}=V_{\text{RRM}}$, $V_{\text{RM}}=V_{\text{RRM}}$, $T_j=125^{\circ}\text{C}$		5 200	μA
I_{DRM}	Repetitive peak off-state current	$V_{\text{DM}}=V_{\text{DRM}}$, $V_{\text{DM}}=V_{\text{DRM}}$, $T_j=125^{\circ}\text{C}$		5 200	μA
V_{TM}	On-state voltage	$I_{\text{TM}}= 8\text{A}$, $t_p = 380 \mu\text{s}$		1.8	V
I_{GT}	Gate-trigger current	$V_{\text{D}}=12\text{V}$, $R_{\text{L}}=140 \Omega$, $R_{\text{GK}}=1\text{K} \Omega$	20	50	μA
V_{GT}	Gate-trigger voltage	$V_{\text{D}}=12\text{V}$, $R_{\text{L}}=140 \Omega$, $R_{\text{GK}}=1\text{K} \Omega$		0.8	V
I_{H}	Holding current	$V_{\text{D}}=24\text{V}$, $R_{\text{GK}}=1\text{K} \Omega$, $I_{\text{TM}}=4\text{A}$		6	mA

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