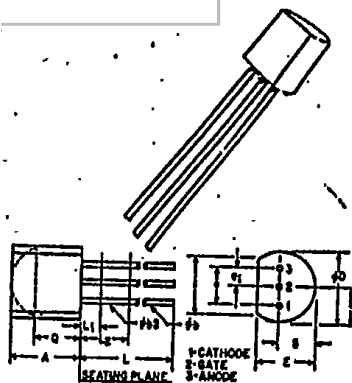




Silicon Controlled Rectifier

C203

0.8A RMS UP TO 400 VOLTS

MAXIMUM ALLOWABLE RATINGS

TYPE	REPETITIVE PEAK OFF-STATE VOLTAGE, $V_{DRM}^{(1)}$ $T_C = -65^\circ\text{C to } +125^\circ\text{C}$	REPETITIVE PEAK REVERSE VOLTAGE, $V_{DRM}^{(2)}$ $T_C = -65^\circ\text{C to } +125^\circ\text{C}$
C203Y	30 Volts	30 Volts
C203YY	60 Volts	60 Volts
C203A	100 Volts	100 Volts
C203B	200 Volts	200 Volts
C203C	300 Volts	300 Volts
C203D	400 Volts	400 Volts

CHARACTERISTICS

TEST	SYMBOL	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Peak Reverse and Off-State Current (All Types)	I_{RRM} or I_{DRM}	—	—	1.0	μA	$T_C = +25^\circ\text{C}$, $R_{GK} = 1000$ ohms $V_{RRM} = V_{DRM} = \text{Rated Value}$.
		—	—	50		$T_C = +125^\circ\text{C}$, $R_{GK} = 1000$ ohms $V_{RRM} = V_{DRM} = \text{Rated Value}$.
DC Gate Trigger Current	I_{GT}	—	—	200	$\mu\text{A dc}$	$T_C = +25^\circ\text{C}$, $V_D = 6\text{Vdc}$, $R_L = 100$ ohms.
		—	—	500		$T_C = -65^\circ\text{C}$, $V_D = 6\text{Vdc}$, $R_L = 100$ ohms.
DC Gate Trigger Voltage	V_{GT}	—	—	0.8	Vdc	$T_C = +25^\circ\text{C}$, $V_D = 6\text{Vdc}$, $R_L = 100$ ohms.
		—	—	1.0		$T_C = -65^\circ\text{C}$, $V_D = 6\text{Vdc}$, $R_L = 100$ ohms.
		0.1	—	—		$T_C = +125^\circ\text{C}$, Rated V_{DRM} , $R_L = 1000$ ohms.
Peak On-State Voltage	V_{TM}	—	—	1.5	V	$T_C = +25^\circ\text{C}$, $I_{TM} = 1.0\text{A peak}$, 1 msec. wide pulse, Duty Cycle $\leq 2\%$
Holding Current	I_H	—	—	5.0	mA dc	Anode source voltage = 12Vdc, $R_{GK} = 1000$ ohms. $T_C = +25^\circ\text{C}$.
		—	—	10.0		$T_C = -65^\circ\text{C}$
Critical Rate-of-Rise-of Off-State Voltage	dv/dt	—	20	—	$\text{V}/\mu\text{sec}$	$T_C = +125^\circ\text{C}$, Rated V_{DRM} , $R_{GK} = 1000$ ohms.
Circuit Commutated Turn-Off Time	t_q	—	15	—	μsec	$T_C = +125^\circ\text{C}$, rectangular current waveform. Rate-of-rise of current $< 10\text{A}/\mu\text{sec}$. Rate reversal of current $< 5\text{A}/\mu\text{sec}$. $I_{TM} = 1\text{A}$ (50 μsec . pulse). Rep. Rate = 60 pps. $V_{RRM} = \text{Rated}$, $V_{RX} = 15\text{V Min.}$, $V_{DRM} = \text{Rated}$. Rate-of-rise of reapplied off-state voltage = $20\text{V}/\mu\text{sec.}$; Gate Bias = 0 Volts, 100 Ohms (during turn-off time interval).
Steady-State Thermal Resistance	$R_{\theta JC}$	—	—	125	$^\circ\text{C}/\text{W}$	Junction-to-case (flat side of case — temperature reference point).
	$R_{\theta JA}$	—	—	230		Junction-to-ambient (free convection).