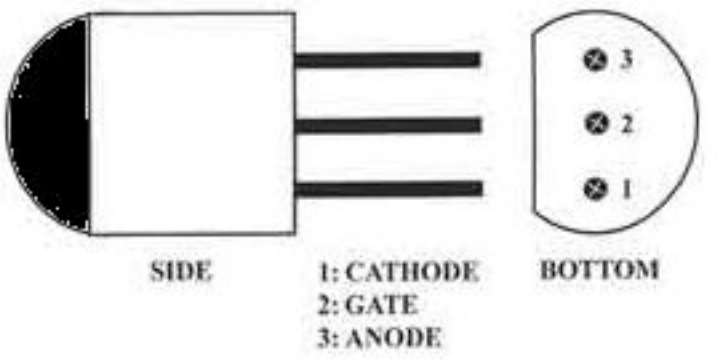
DIGITRON C203Y Silicon Controlled Rectifier - 0.8A RMS



MAXIMUM ALLOWABLE RATINGS

TYPE	REPETITIVE PEAK OFF-STATE VOLTAGE, V_{DRM}(1) T_C = -65°C to +125°C	REPETITIVE PEAK REVERSE VOLTAGE, V_{DRM}(2) T_C = -65°C to +125°C
C203Y	30 Volts	30 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°C, R_{GK} = 1000 ohms V_{RRM} = V_{DRM} = Rated Value.
		–	–	50		T_C = +125°C, R_{GK} = 1000 ohms V_{RRM} = V_{DRM} = Rated Value.
DC Gate Trigger Current	I_{GT}	–	–	200	μAdc	T_C = +25°C, V_D = 6Vdc, R_L = 100 ohms.
		–	–	500		T_C = -65°C, V_D = 6Vdc, R_L = 100 ohms.
DC Gate Trigger Voltage	V_{GT}	–	–	0.8	Vdc	T_C = +25°C, V_D = 6Vdc, R_L = 100 ohms.
		–	–	1.0		T_C = -65°C, V_D = 6Vdc, R_L = 100 ohms.
		0.1	–	–		T_C = +125°C, Rated V_{DRM}, R_L = 1000 ohms.
Peak On-State Voltage	V_{TM}	–	–	1.5	V	T_C = +25°C, I_{TM} = 1.0A peak, 1 msec. wide pulse, Duty Cycle < 2%
Holding Current	I_H	–	–	5.0	mAdc	Anode source voltage = 12Vdc, R_{GK} = 1000 ohms. T_C = +25°C.
		–	–	10.0		T_C = -65°C
Critical Rate-of-Rise of Off-State Voltage	dv/dt	–	20	–	V/μsec	T_C = +125°C, Rated V_{DRM}, R_{GK} = 1000 ohms.
Circuit Commutated Turn-Off Time	t_q	–	15	–	μsec	T_C = +125°C, rectangular current waveform: Rate-of-rise of current <10A/μsec. Rate reversal of current <5A/μsec. I_{TM} = 1A (50 μsec. pulse). Rep. Rate = 60 pps. V_{RRM} = Rated, V_{RX} = 15V Min., V_{DRM} = Rated. Rate-of-rise of reapplied off-state voltage = 20V/μsec.; Gate Bias = 0 Volts, 100 Ohms (during turn-off time interval).
Steady-State Thermal Resistance	$R\theta_{JC}$	–	–	125	°C/W	Junction-to-case (flat side of case is temperature reference point).
	$R\theta_{JA}$	–	–	230		Junction-to-ambient (free convection).