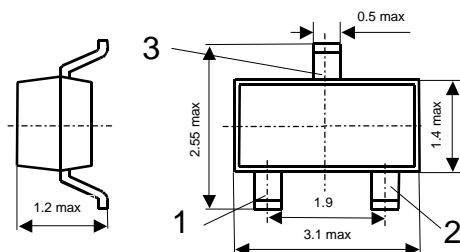


MMBT6027

Silicon programmable unijunction transistor (PUT's)
in package SOT-23



Pinouts:

1- Anode, 2- Gate, 3- Cathode

Ratings ($T_A = 25^\circ\text{C}$)

Symbol	Parameter, units	Limits
V_{AK}	*Anode to cathode voltage, V	± 40
V_{GKF}	*Gate to cathode forward voltage, V	40
V_{GKR}	*Gate to cathode reverse voltage, V	-5
V_{GAR}	*Gate to anode reverse voltage, V	40
I_T	*DC forward anode current, mA	150
I_{TRM}	Repetitive peak forward current, A	
	100 μ s Pulse width, 1% duty cycle	1
	*20 μ s Pulse width, 1% duty cycle	2
P_T	*Power dissipation, mW	300

* - Anode positive, $R_{GA} = 1000\Omega$;
Anode negative, $R_{GA} = \text{open}$

Electrical Characteristics ($T_A = 25^\circ\text{C}$)

Symbol	Parameter, units, test conditions	Limits		
		min	typ	max
I_P	Peak current, μ A, $V_S = 10\text{V}$, $R_G = 10\text{k}\Omega$		4	5
I_{GAO}	Gate to anode leakage current, nA, $V_S = 40\text{V}$, cathode open		1	10
I_{GKS}	Gate to cathode leakage current, nA, $V_S = 40\text{V}$, anode to cathode shorted		5	50
V_F	Forward voltage, V, $I_F = 50\text{mA}$ Peak		0.8	1.5
V_O	Peak output voltage, V, $V_G = 20\text{V}$, $C_C = 0.2\ \mu\text{F}$	6	11	
V_T	Offset voltage, V $V_S = 10\text{V}$, $R_G = 10\text{k}\Omega$	0.2	0.35	0.6
I_V	Valley current, μ A, $V_S = 10\text{V}$, $R_G = 10\text{k}\Omega$	70	150	
t_R	Pulse voltage rise time, ns $U_B = 20\text{V}$, $C_C = 0.2\ \mu\text{F}$		40	80