CMPP6027R
CMPP6028R

SURFACE MOUNT SILICON PROGRAMMABLE UNIJUNCTION TRANSISTORS



SOT-23 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPP6027R and CMPP6028R are silicon programmable unijunction transistors, manufactured in a surface mount SOT-23 package, designed for adjustable (programmable) characteristics such as, valley current (I_V), peak current (I_P), and intrinsic standoff ratio (η).

MARKING CODES: **CMPP6027R: P27**
CMPP6028R: P28

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Gate-Cathode Forward Voltage	V_{GKF}	40	V
Gate-Cathode Reverse Voltage	V_{GKR}	5.0	V
Gate-Anode Reverse Voltage	V_{GAR}	40	V
Anode-Cathode Voltage	V_{AK}	40	V
Peak Non-Repetitive Forward Current (t=10μs)	I_{TSM}	5.0	A
Peak Repetitive Forward Current (t=20μs, D.C.=1.0%)	I_{TRM}	2.0	A
Peak Repetitive Forward Current (t=100μs, D.C.=1.0%)	I_{TRM}	1.0	A
DC Forward Anode Current	I_T	150	mA
DC Gate Current	I_G	50	mA
Power Dissipation (Note 1)	P_D	167	mW
Storage Temperature	T_{stg}	-55 to +150	°C
Operating Junction Temperature	T_J	-50 to +100	°C
Thermal Resistance (Note 1)	Θ_{JA}	450	°C/W

Note 1: Mounted on 2 inch square FR-4 PCB with minimum copper pad area.

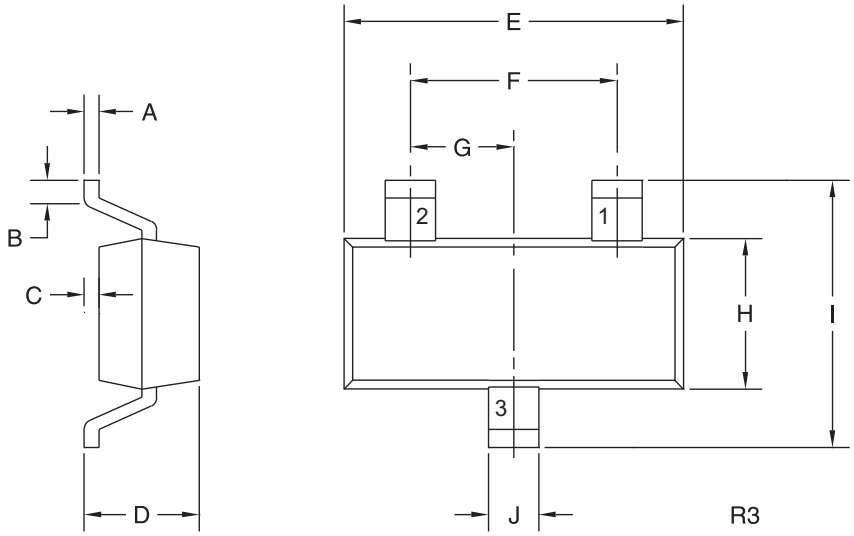
ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

		CMPP6027R		**CMPP6028R**		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
I_{GAO}	V_S=40V		10		10	nA
I_{GKS}	V_S=40V		50		50	nA
I_P	V_S=10V, R_G=1.0MΩ		2.0		0.15	μA
I_P	V_S=10V, R_G=10kΩ		5.0		1.0	μA
I_V	V_S=10V, R_G=1.0MΩ		50		25	μA
I_V	V_S=10V, R_G=10kΩ	70		25		μA
I_V	V_S=10V, R_G=200Ω	1.5		1.0		mA
V_T	V_S=10V, R_G=1.0MΩ	0.2	1.6	0.2	0.6	V
V_T	V_S=10V, R_G=10kΩ	0.2	0.6	0.2	0.6	V
V_F	I_F=50mA		1.5		1.5	V
V_O	V_B=20V, C_C=0.2μF	6.0		6.0		V
t_r	V_B=20V, C_C=0.2μF		80		80	ns

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SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) Anode
2) Cathode
3) Gate

MARKING CODES:
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DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

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SERVICES

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development / Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

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R0 (24-June 2015)