

2N6027
2N6028

**SILICON
PROGRAMMABLE
UNIJUNCTION TRANSISTORS**



TO-92 CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6027 and 2N6028 devices are silicon programmable unijunction transistors, manufactured in an epoxy molded package, designed for adjustable (programmable) characteristics such as Valley Current (I_V), Peak Current (I_P), and Intrinsic Standoff Ratio (η).

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Gate-Cathode Forward Voltage

Gate-Cathode Reverse Voltage

Gate-Anode Reverse Voltage

Anode-Cathode Voltage

Peak Non-Repetitive Forward Current ($t=10\mu\text{s}$)

Peak Repetitive Forward Current ($t=20\mu\text{s}$, D.C.=1.0%)

Peak Repetitive Forward Current ($t=100\mu\text{s}$, D.C.=1.0%)

DC Forward Anode Current

DC Gate Current

Power Dissipation

Operating Junction Temperature

Storage Temperature

SYMBOL

V_{GKF} 40

V_{GKR} 5.0

V_{GAR} 40

V_{AK} 40

I_{TSM} 5.0

I_{TRM} 2.0

I_{TRM} 1.0

I_T 150

I_G 50

P_D 300

T_J -50 to +100

T_{stg} -55 to +150

UNITS

V

V

V

V

A

A

A

mA

mA

mW

$^\circ\text{C}$

$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N6027		2N6028		UNITS
		MIN	MAX	MIN	MAX	
I_{GAO}	$V_S=40\text{V}$	-	10	-	10	nA
I_{GKS}	$V_S=40\text{V}$	-	50	-	50	nA
I_P	$V_S=10\text{V}$, $R_G=1.0\text{M}\Omega$	-	2.0	-	0.15	μA
I_P	$V_S=10\text{V}$, $R_G=10\text{k}\Omega$	-	5.0	-	1.0	μA
I_V	$V_S=10\text{V}$, $R_G=1.0\text{M}\Omega$	-	50	-	25	μA
I_V	$V_S=10\text{V}$, $R_G=10\text{k}\Omega$	70	-	25	-	μA
I_V	$V_S=10\text{V}$, $R_G=200\Omega$	1.5	-	1.0	-	mA
V_T	$V_S=10\text{V}$, $R_G=1.0\text{M}\Omega$	0.2	1.6	0.2	0.6	V
V_T	$V_S=10\text{V}$, $R_G=10\text{k}\Omega$	0.2	0.6	0.2	0.6	V
V_F	$I_F=50\text{mA}$	-	1.5	-	1.5	V
V_O	$V_B=20\text{V}$, $C_C=0.2\mu\text{F}$	6.0	-	6.0	-	V
t_r	$V_B=20\text{V}$, $C_C=0.2\mu\text{F}$	-	80	-	80	ns

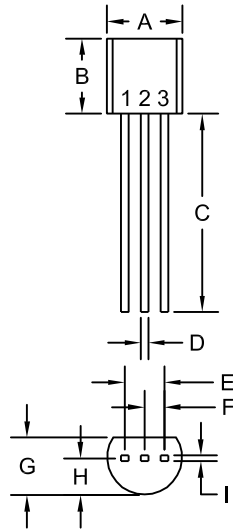
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TO-92 CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)

LEAD CODE:

- 1) Anode
- 2) Gate
- 3) Cathode

MARKING:
FULL PART NUMBER

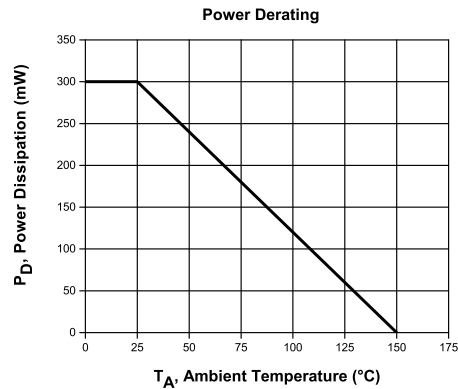
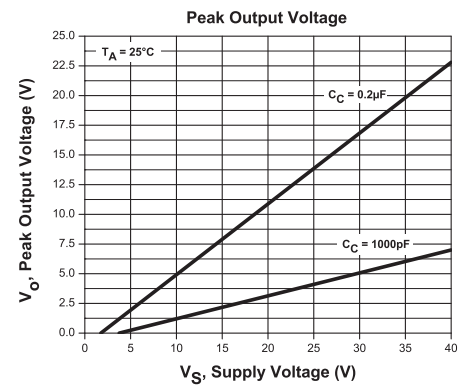
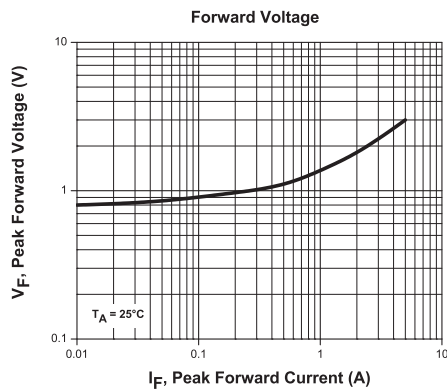
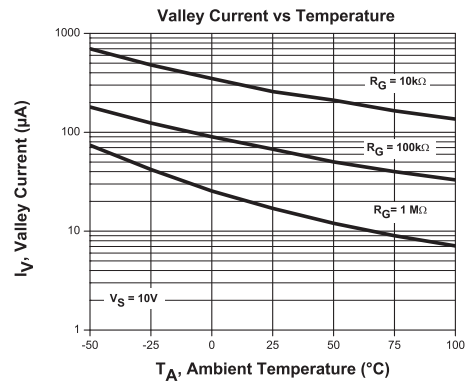
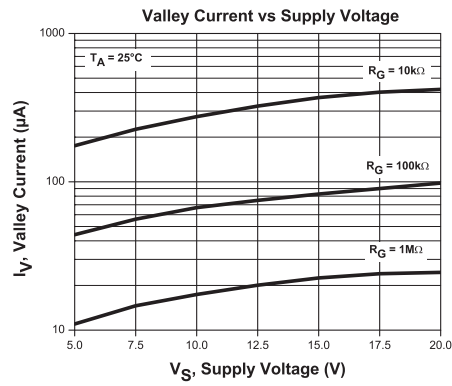
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TYPICAL ELECTRICAL CHARACTERISTICS



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OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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