



New Product Announcement

ZXTN26020DMF
ZXTP26020DMF

Industry smallest 1.5A transistor

Diodes Incorporated has introduced the ZXTN26020DMF; the industry smallest 20V, 1.5A rated NPN transistor. Coming from the company's latest GEN 5 matrix emitter Bipolar transistor process the very low saturation voltage enables this current rating to be achieved.

The transistor is offered in the 1.4mm x 1.1mm leadless DFN1411-3 package outline providing power dissipation of 0.38W from a minimum copper footprint.

Along with the complimentary ZXTP26020DMF, these new transistors offer solutions for space constrained applications requiring increased power density or additional functionality.

Typical functions performed by these miniature transistors are driving of MOSFETs in high frequency DC-DC converters, load disconnect switches in portable products, regulators circuits and external switches in DC-DC converters.

For samples and quotations, please contact your nearest Diodes sales office or representative.



The Diodes' Advantage

- **Ultra-Miniature Package**
1.4mm x 1.1mm footprint; 78% smaller than SOT23
- **Excellent thermal performance**
FR-4 PCB power rating of 0.38W on minimum copper foot print
- **Very low saturation voltage**
Low voltage drop, reduced dissipation and heating. <70mV @ 0.5A
- **Good gain hold up**
Low drive requirements for pulse applications. 200 min @ 2A

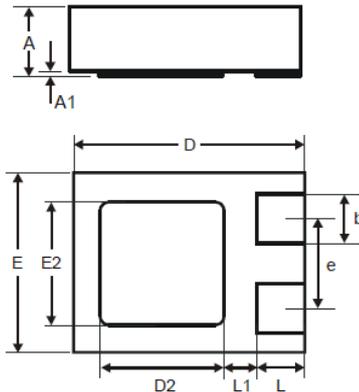
Applications

- MOSFET or IGBT gate driver
- DC-DC conversion
- High power density modules
- Load disconnect switch
- Low / High sided switching circuits



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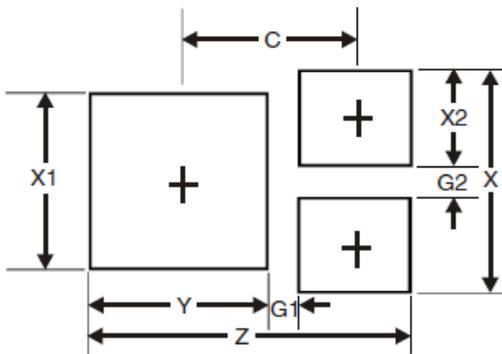
DFN1411-3 package outline and dimensions



DFN1411-3			
Dim	Min	Max	Typ
A	0.47	0.53	0.50
A1	0	0.05	0.02
b	0.25	0.35	0.30
D	1.35	1.475	1.40
D2	0.65	0.85	0.75
E	1.05	1.18	1.10
E2	0.65	0.85	0.75
e	—	—	0.55
L	0.225	0.325	0.275
L1	—	—	0.20

All Dimensions in mm

DFN1411-3 suggested pad layout



Dimensions	Value (in mm)
Z	1.38
G1	0.15
G2	0.15
X	0.95
X1	0.75
X2	0.40
Y	0.75
C	0.76

Product portfolio

Part Number	Device Type	V _{CEO} V	I _C A	I _{CM} A	P _D W	h _{FE}				V _{CE(SAT)}				f _T MHz	R _{CE(SAT)} mΩ
						Min	@I _C A	Min	@I _C A	Max	@ I _C /I _B A/mA	Max	@ I _C /I _B A/mA		
ZXTN26020DMF	NPN	20	1.5	4	0.38	300	0.1	200	2	45	0.1/1	225	2/100	260	90
ZXTP26020DMF	PNP	-20	-1.25	-4	0.38	300	-0.1	175	-1	-80	-0.1/-1	-155	-1/-50	200	125