RFG70N06, RFP70N06, RF1S70N06, RF1S70N06SM

70A, 60V, Avalanche Rated, N-Channel Enhancement-Mode Power MOSFETs

December 1995

Features

- **70A, 60V**
- **$r_{DS(on)}$ = 0.014Ω**
- ***Temperature Compensated* PSPICE Model**
- **Peak Current vs Pulse Width Curve**
- **UIS Rating Curve (Single Pulse)**
- **+175°C Operating Temperature**

Description

The RFG70N06, RFP70N06, RF1S70N06 and RF1S70N06SM are N-channel power MOSFETs manufactured using the MegaFET process. This process, which uses feature sizes approaching those of LSI circuits, gives optimum utilization of silicon, resulting in outstanding performance. They were designed for use in applications such as switching regulators, switching converters, motor drivers and relay drivers. These transistors can be operated directly from integrated circuits.

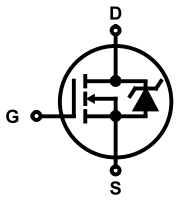
PACKAGE AVAILABILITY

PART NUMBER	PACKAGE	BRAND
RFG70N06	TO-247	RFG70N06
RFP70N06	TO-220AB	RFP70N06
RF1S70N06	TO-262AA	F1S70N06
RF1S70N06SM	TO-263AB	F1S70N06

NOTE: When ordering use the entire part number. Add the suffix, 9A, to obtain the TO-263AB variant in tape and reel, e.g. RF1S70N06SM9A.

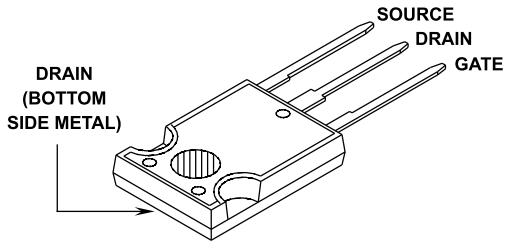
Formerly developmental type TA49007.

Symbol

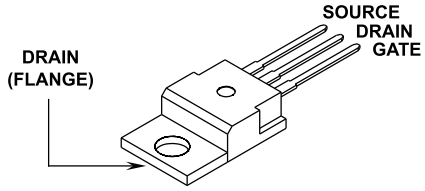


Packages

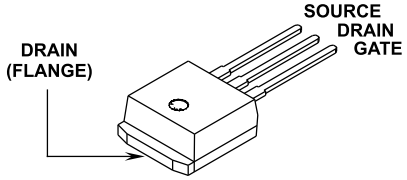
JEDEC STYLE TO-247



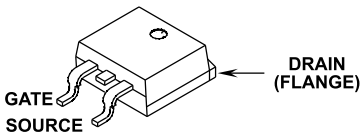
JEDEC TO-220AB



JEDEC TO-262AA



JEDEC TO-263AB



Absolute Maximum Ratings T_C = +25°C, Unless Otherwise Specified

		RFG70N06, RFP70N06 RF1S70N06, RF1S70N06SM	UNITS
Drain Source Voltage	V_{DSS}	60	V
Drain Gate Voltage	V_{DGR}	60	V
Gate Source Voltage	V_{GS}	±20	V
Drain Current			
RMS Continuous	I_D	70	A
Pulsed Drain Current	I_{DM}	Refer to Peak Current Curve	
Single Pulse Avalanche Rating	E_{AS}	Refer to UIS Curve	
Power Dissipation			
T_C = +25°C	P_D	150	W
Derate above +25°C		1.0	W/°C
Operating and Storage Temperature	T_{STG}, T_J	-55 to +175	°C

CAUTION: These devices are sensitive to electrostatic discharge. Users should follow proper ESD handling procedures.

File Number **3206.3**