

## RF LDMOS High Power Transistors

Motorola, Inc. introduces a new family of RF power plastic LDMOS devices optimized for 1.0 GHz base station applications. Fully characterized and individually tuned to operate at frequencies to 1.0 GHz, this family of RF LDMOS devices is housed in the TO-270 RF power plastic package.

The TO-270 is a JEDEC registered, two-lead RF power plastic package. The package style has been designed to be compatible with today's automated PCB assembly lines. Completely gold-free, the TO-270 package combines lead coplanarity for ease of manufacturing with solderable leads and a copper heat sink for improved thermal management allowing better than 25% thermal performance over previous elkonite packages.

The first product to be unveiled in the family is the MRF9045MR1. Capable of handling up to 45 watts PEP, the MRF9045MR1 is a single-ended RF power device operating at 28 volts utilizing RF LDMOS technology. The device provides excellent efficiency and linearity performance for linear base station applications up to 1 GHz. The MRF9045MR1 yields 17 dB gain typical, less than 10% Idq drift over 20 years and full gate ESD protection. The 900 MHz plastic product line includes integrated ESD protection that is designed to simplify handling and increase overall manufacturing cost efficiency associated with assembling ultra-sensitive devices.

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