

**Repetitive Avalanche and dv/dt Rated
MOSFET Transistor P-Channel**

2N7524

**60 Volt, 0.015 W, RAD Hard MOSFET
Package: SMD-2**

R5

Product Summary

Hex Size	Technology	BV _{DSS}	R _{DS(on)}	I _D
6	RAD Hard	-60V	0.015 Ω	-75*A

Absolute Maximum Ratings

	Parameter	Value	Units
I _D @ V _{GS} = -12V, T _C = 25°C	Continuous Drain Current	-75*	A
I _D @ V _{GS} = -12V, T _C = 100°C	Continuous Drain Current	-58	A
P _D @ T _C = 25°C	Power Dissipation	300	W
V _{GS}	Gate-to-Source Voltage	±20	V
E _{AS}	Single Pulse Avalanche Energy	500	mJ
I _{AR}	Avalanche Current	-75	A
E _{AR}	Repetitive Avalanche Energy	30	mJ
T _J	Operating Junction Range	-55 to 150	°C

Pre-Irradiation

Electrical Characteristics @ T_J = 25°C (Unless Otherwise Specified)

	Parameter	Min	Typ.	Max	Units	Test Conditions
BV _{DSS}	Drain-to-Source Breakdown Voltage	-60	-	-	V	V _{GS} =0V, I _D =-1.0mA
R _{DS(on)}	Static Drain-to-Source On-State Resistance	-	-	0.015	Ω	V _{GS} =-12V, I _D =-58A
V _{GS(th)}	Gate Threshold Voltage	-2.0	-	-4.0	V	V _{DS} =V _{GS} , I _D =-1.0mA
I _{DSS}	Zero Gate Voltage Drain Current	-	-	-10	μA	V _{DS} = -48V, V _{GS} =0V
I _{DSS}	Zero Gate Voltage Drain Current	-	-	-25	μA	V _{DS} =-48V, T _J =125°C
I _{GSS}	Gate-to-Source Leakage Forward	-	-	-100	nA	V _{GS} =-20V
I _{GSS}	Gate-to-Source Leakage Reverse	-	-	100	nA	V _{GS} =20V
Qg	Total Gate Charge	-	-	140	nC	V _{GS} =-12V, I _D =-45A

Thermal Resistance

Parameter	Min	Typ.	Max	Units	Test Conditions
R _{thJC} Junction-to-Case	-	-	0.42	°C/W	

*Current is limited by internal wire size