

CoolMOS™ Power Transistor
Features

- Lowest figure-of-merit $R_{ON} \times Q_g$
- Extreme dv/dt rated
- High peak current capability
- Qualified according to JEDEC¹⁾ for target applications
- Pb-free lead plating; RoHS compliant
- Ultra low gate charge

Product Summary

$V_{DS} @ T_J=25^\circ\text{C}$	900	V
$R_{DS(on),max} @ T_J=25^\circ\text{C}$	0.5	Ω
$Q_{g,typ}$	68	nC

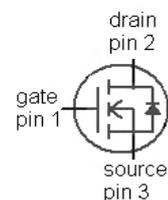
CoolMOS™ 900V is designed for:

- Quasi Resonant Flyback / Forward topologies
- PC Silverbox and consumer applications
- Industrial SMPS

PG-TO262



Type	Package	Marking
IPI90R500C3	PG-TO262	9R500C


Maximum ratings, at $T_J=25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	Value	Unit
Continuous drain current	I_D	$T_C=25^\circ\text{C}$	11	A
		$T_C=100^\circ\text{C}$	6.8	
Pulsed drain current ²⁾	$I_{D,pulse}$	$T_C=25^\circ\text{C}$	24	
Avalanche energy, single pulse	E_{AS}	$I_D=2.2\text{ A}, V_{DD}=50\text{ V}$	388	mJ
Avalanche energy, repetitive t_{AR} ^{2),3)}	E_{AR}	$I_D=2.2\text{ A}, V_{DD}=50\text{ V}$	0.74	
Avalanche current, repetitive t_{AR} ^{2),3)}	I_{AR}		2.2	A
MOSFET dv/dt ruggedness	dv/dt	$V_{DS}=0\dots400\text{ V}$	50	V/ns
Gate source voltage	V_{GS}	static	± 20	V
		AC ($f > 1\text{ Hz}$)	± 30	
Power dissipation	P_{tot}	$T_C=25^\circ\text{C}$	156	W
Operating and storage temperature	T_J, T_{stg}		-55 ... 150	$^\circ\text{C}$