Silicon N-Channel Power MOSFET

CS830 A4RD

General Description：

CS830 A4RD, the silicon N-channel Enhanced VDMOSFETs, is obtained by the self-aligned planar Technology which reduce the conduction loss, improve switching performance and enhance the avalanche energy. The transistor can be used in various power switching circuit for system miniaturization and higher efficiency. The package form is TO-252, which accords with the RoHS standard.

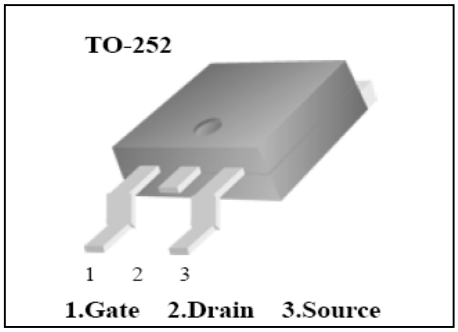
Features：

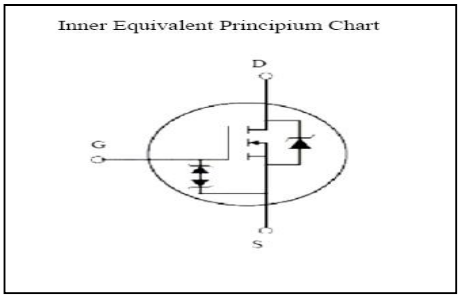
- **Fast Switching**
- **ESD Improved Capability**
- **Low Gate Charge (Typical Data:14.5nC)**
- **Low Reverse transfer capacitances(Typical:7.5pF)**
- **100% Single Pulse avalanche energy Test**

Applications：

Power switch circuit of adaptor and charger.

V_{DSS}	500	V
I_D	5	A
$P_D(T_C=25℃)$	75	W
$R_{DS(ON)Typ}$	1.25	Ω





Absolute（Tc= 25℃ unless otherwise specified）：

Symbol	Parameter	Rating	Units
V_{DSS}	Drain-to-Source Voltage	500	V
I_D	Continuous Drain Current	5	A
	Continuous Drain Current T_C = 100 °C	3.4	A
I_{DM}[a1]	Pulsed Drain Current	20	A
V_{GS}	Gate-to-Source Voltage	±30	V
E_{AS}[a2]	Single Pulse Avalanche Energy	200	mJ
E_{AR}[a1]	Avalanche Energy ,Repetitive	30	mJ
I_{AR}[a1]	Avalanche Current	2.5	A
dv/dt[a3]	Peak Diode Recovery dv/dt	5.0	V/ns
P_D	Power Dissipation	75	W
	Derating Factor above 25°C	0.6	W/℃
$V_{ESD(G-S)}$	Gate source ESD (HBM-C= 100pF, R=1.5kΩ)	3000	V
T_J，T_{stg}	Operating Junction and Storage Temperature Range	150，–55 to 150	℃
T_L	Maximum Temperature for Soldering	300	℃