/ Descriptions

TO-252 P MOS

P-CHANNEL MOSFET in a TO-252 Plastic Package.

/ Features

V_{DS}(V)=-100V I_D=-22A

$R_{DS(ON)}$@-10V<70mΩ(Typ.67mR)

$R_{DS(ON)}$@-4.5V<85mΩ(Typ.70mR)

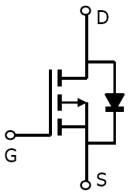
AEC-Q101 Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

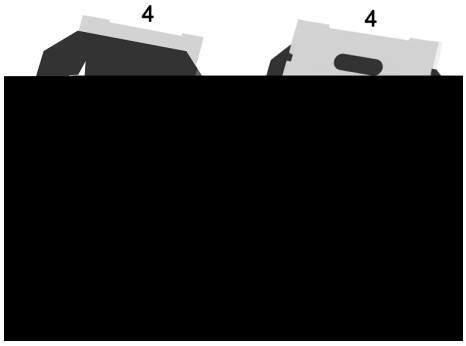
DC/DC

Power Management of Industrial DC/DC Converter, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1 G PIN 2 D PIN 3 S PIN 4 D

/ Marking

See Marking Instructions.

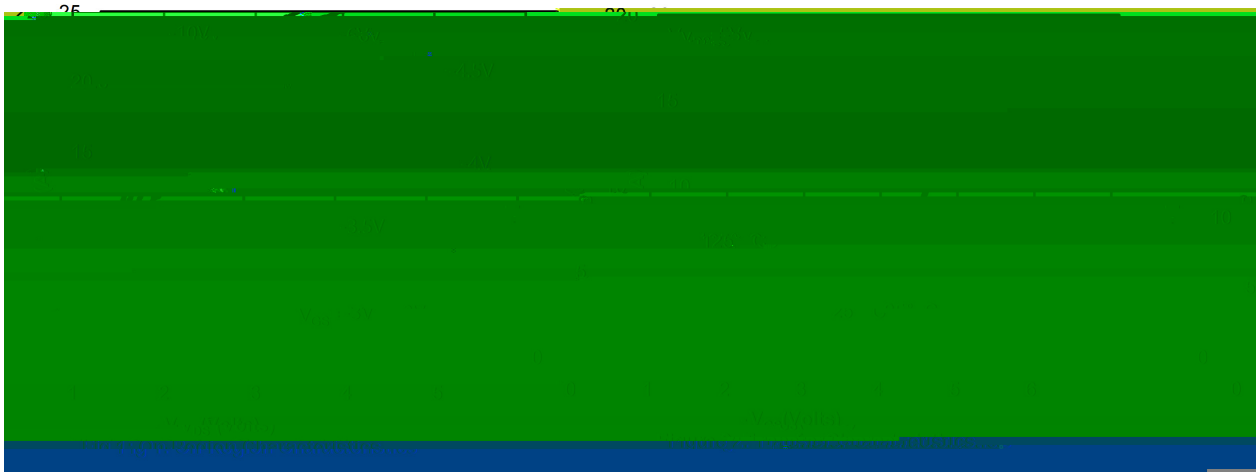
Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	-100	V
Drain Current - Continuous		I_D(T_c=25)	-22	A
Drain Current – Pulsed		I_{DM}	-66	A
Gate-Source Voltage		V_{GS}	± 20	V
Power Dissipation		P_D(T_c=25)	75	W
Single Pulse Avalanche Energy(L=0.5mH)		E_{AS}	176.4	mJ
Avalanche Current(L=0.5mH)		I_{AS}	-21	A
Junction and Storage Temperature Range		T_j, T_{stg}	-55 to 150	
Thermal resistance, junction - ambient	Steady-State	$R_{\theta JA}$	62	/ W
Thermal resistance, junction - case	Steady-State	$R_{\theta JC}$	1.67	/ W

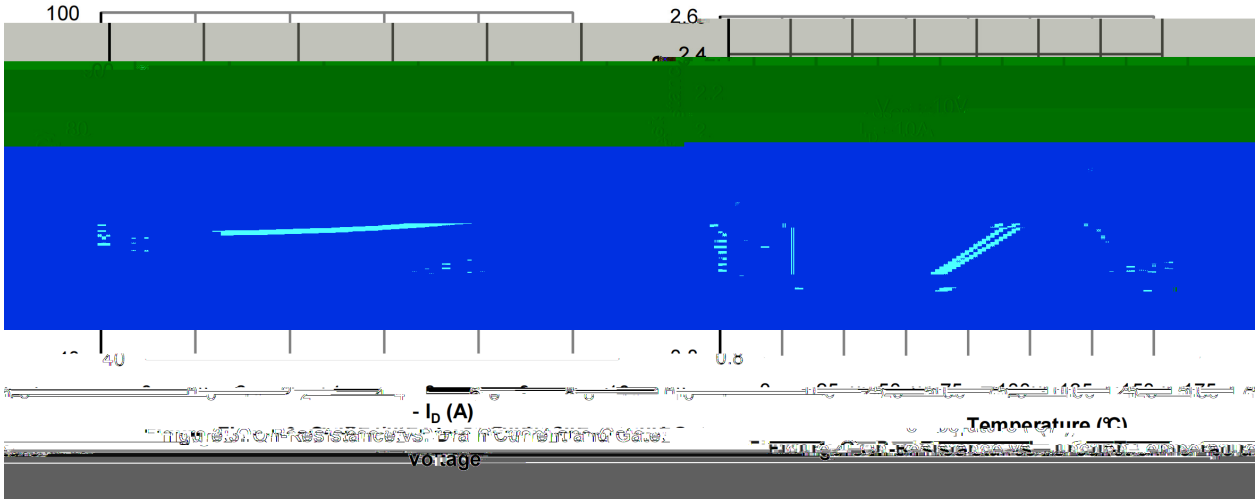
Parameter	Symbol	Test Conditions	Min

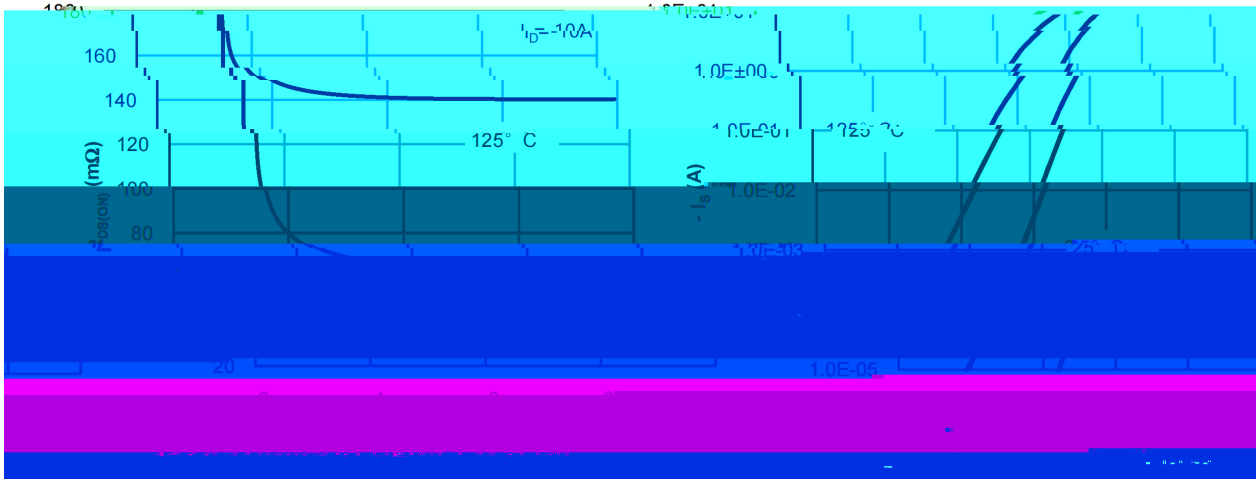
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=-10V V_{DS}=-50V R_L=10Ω R_{GEN}=3Ω		6		ns
Turn-On Rise Time	t_r			2.4		
Turn-Off Delay Time	$t_{d(off)}$			19		
Turn-Off Fall Time	t_f			2.6		

/ Electrical Characteristic Curve



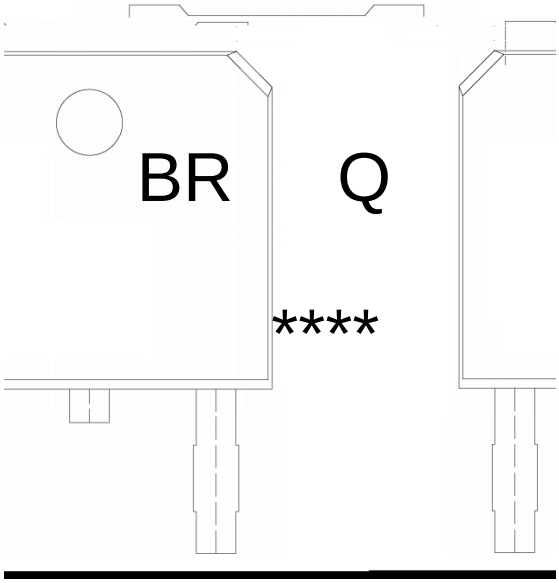




BRCS700P10DPQ

[redacted]

/ Marking Instructions



BR

Q

700P10

****

Note:

BR:	Company Code
Q:	Automobile halogen-free product Code
700P10:	Product Type Code
****:	Lot No. Code, code change with Lot No

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)

Note:

1	150	200		60	120sec;	1.Preheating:150~200	, Time:60~120sec.
2	255±5				5±0.5sec;	2.Peak Temp.:255±5	, Duration:5±0.5sec.
3			2	10	/sec.	3. Cooling Speed: 2~10	/sec.