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FAM65HR51DS1





# FAM65HR51DS1

**Table 4. ELECTRICAL SPECIFICATIONS** ( $T_J = 25\text{ C}$ , Unless Otherwise Specified)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$BV_{DSS}$	Drain-to-Source Breakdown Voltage	$I_D = 1\text{ mA}$ , $V_{GS} = 0\text{ V}$	650	–	–	V
$V_{GS(th)}$	Gate to Source Threshold Voltage	$V_{GS} = V_{DS}$ , $I_D = 3.3\text{ mA}$	3.0	–	5.0	V
$R_{DS(ON)}$	Q1 – Q4 MOSFET On Resistance	$V_{GS} = 10\text{ V}$ , $I_D = 20\text{ A}$	–	44	51	$m\Omega$
$R_{DS(ON)}$	Q1 – Q4 MOSFET On Resistance	$V_{GS} = 10\text{ V}$ , $I_D = 20\text{ A}$ , $T_J = 125\text{ C}$ (Note 4)	–	79	–	$m\Omega$
$g_{FS}$	Forward Transconductance	$V_{DS} = 20\text{ V}$ , $I_D = 20\text{ A}$ (Note 4)	–			



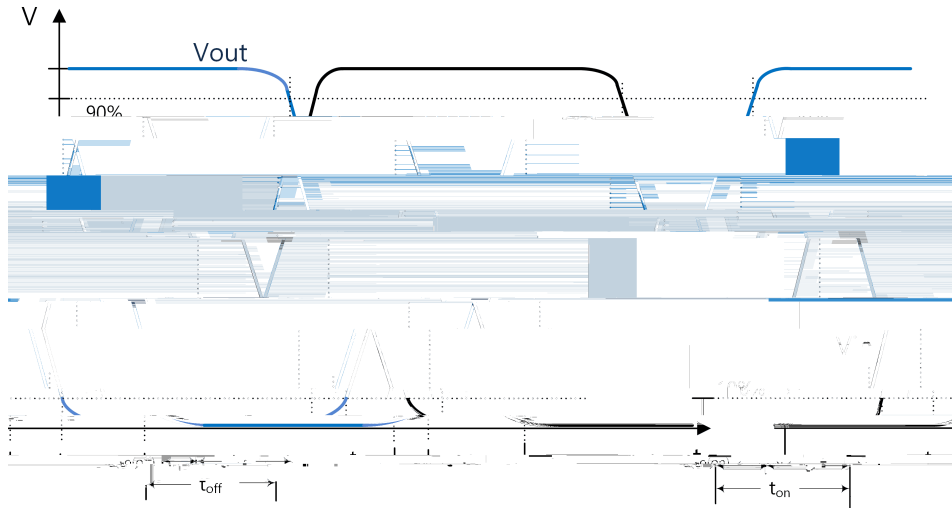


Figure 3. Timing Measurement Variable Definition

Table 7. PARAMETER OF SWITCHING CHARACTERISTICS

Turn-On Delay ( $t_{d(on)}$ )	This is the time needed to charge the input capacitance, $C_{iss}$ , before the load current $I_D$ starts flowing. The measurement conditions are described in the Table 4. For signal definition please check Figure 3 above.
Rise Time ( $t_r$ )	The rise time is the time to discharge output capacitance, $C_{oss}$ . After that time the MOSFET conducts the given load current $I_D$ . The measurement conditions are described in the Table 4. For signal definition please check Figure 3 above.

Turn-On Time (t

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## TYPICAL CHARACTERISTICS

Figure 4. Normalized Power Dissipation vs. Case

Figure 5. Maximum Continuous  $I_D$  vs. Case

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## TYPICAL CHARACTERISTICS

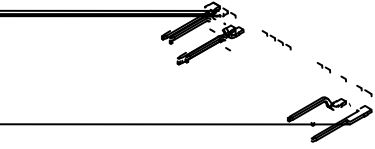
Figure 10. On-Resistance vs. Gate-to-Source





**APMCA-A16 / 16LD, AUTOMOTIVE MODULE**  
CASE MODGF  
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