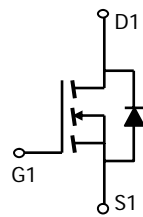
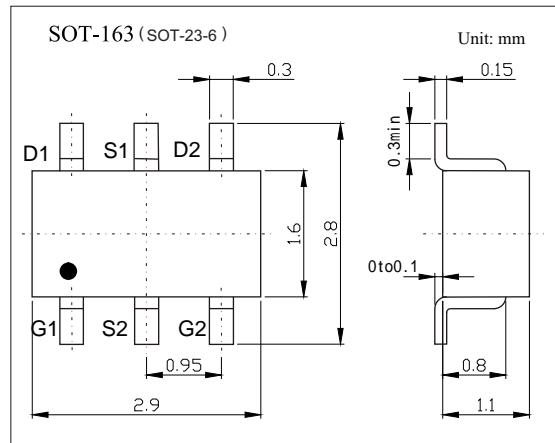


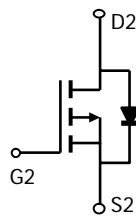
KE3587-G (ME3587-G)

Features

- N-channel: VDS=20V ID=4A
- RDS(ON) < 0.045 @VGS=4.5V
 - RDS(ON) < 0.068 @VGS=2.5V
 - RDS(ON) < 0.12 @VGS=1.8V
- P-channel: VDS=-20V ID=-2A
- RDS(ON) < 0.11 @VGS=-4.5V
 - RDS(ON) < 0.13 @VGS=-2.5V
 - RDS(ON) < 0.17 @VGS=-1.8V



n-channel



p-channel

Absolute Maximum Ratings Ta = 25

Parameter	Symbol	Max N-Channel	Max P-Channel	Unit
Drain-Source Voltage	VDS	20	-20	V
Gate-Source Voltage	VGS	±8		
Drain-Current	-Continuous	ID	4	A
	-Pulsed	IDM	+15	
Power Dissipation	PD	1.15		W
Thermal Resistance, Junction- to-Ambient	R JA	110		/W
Operating Junction and Storage Temperature Range	Tj, Tstg	-55 to +150		

KE3587-G (ME3587-G)

Electrical Characteristics Ta = 25

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit		
Drain-to-Source Breakdown Voltage	V(BR)DSS	ID=+250uA,VGS=0	N-Ch	+20			V		
		ID=-250uA,VGS=0	P-Ch	-20					
Zero Gate Voltage Drain Current	IDSS	VDS=20V,VGS=0V	N-Ch			1	μA		
		VDS=-20V,VGS=0V	P-Ch			-1			
Gate-Body Leakage	IGSS	VGS=±10V,VDS=0V	N-Ch			±100	nA		
		VGS=±10V,VDS=0V	P-Ch			±100			
Gate Threshold Voltage (NOTE 1)	VGS(th)	VGS=VDS,ID=250uA	N-Ch	0.5	0.75	1	V		
		VGS=VDS,ID=-250uA	P-Ch	-0.5	-0.75	-1			
Drain- Source on-state Resistance (NOTE 1)	RDS(ON)	VGS=4.5V,ID=4A	N-Ch			0.045			
		VGS=-4.5V,ID=2.8A	P-Ch			0.11			
		VGS=2.5V,ID=3A	N-Ch			0.068			
		VGS=-2.5V,ID=2.4A	P-Ch			0.13			
		VGS=1.8V,ID=2A	N-Ch			0.12			
		VGS=-1.8V,ID=-1.7A	P-Ch			0.17			
Forward Transconductance (NOTE 1)	gFS	VDS=5V,ID=4A	N-Ch	5			S		
		VDS=-5V,ID=-2.3A	P-Ch	4					
Total Gate Charge	Qg	N-Channel VDS = 10 V, VGS = 4.5 V, ID = 4 A P-Channel VDS = -6 V, VGS = -4.5 V, ID = -2.8 A	N-Ch		11.2	14	nC		
Gate-Source Charge	Qgs		P-Ch		9	11			
			N-Ch		1.4				
Gate-Drain Charge	Qgd		P-Ch		2.3				
			N-Ch		2.2				
			P-Ch		2.0				
Input Capacitance	Ciss	N-Channel VDS = 10 V, VGS = 0 V, f = 1MHz P-Channel VDS = -10V, VGS = 0 V, f = 1MHz	N-Ch		650	700	PF		
Output Capacitance	Coss		P-Ch		650	680			
			N-Ch		175				
Reverse Transfer Capacitance	Crss		P-Ch		120				
			N-Ch		85				
			P-Ch		38				
Turn-On Delay Time	tD(on)	N-Channel VDS = 10 V, RL = 10 Ω, ID = 1 A VGS = 4.5 V, RG = 6 P-Channel VDS = -6 V, RL = 3.6 Ω, ID = -1 A VGS = -4.5 V, RG = 6	N-Ch		9	25	ns		
Rise Time	tr		P-Ch		38	45			
			N-Ch		17	60			
Turn-Off Delay Time	tD(off)		P-Ch		25	30			
			N-Ch		46	70			
Fall Time	tf		P-Ch		43	50			
			N-Ch		2.7	20			
			P-Ch		5	7			
Diode Forward Voltage	VSD		VGS=0V,IS=1A	N-Ch		0.8		1.0	V
			VGS=0V,IS=-1A	P-Ch		-0.85		-1.0	