

BMS3003

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain to Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0V$	-60			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -60V, V_{GS} = 0V$			-10	μA
Gate to Source Leakage Current	I_{GSS}	$V_{GS} = \pm 16V, V_{DS} = 0V$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = -10V, I_D = -1mA$	-1.2		-2.6	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = -10V, I_D = -39A$		130		S
Static Drain to Source On-State Resistance	$R_{DS(on)1}$	$I_D = -39A, V_{GS} = -10V$		5.0	6.5	$m\Omega$
	$R_{DS(on)2}$	$I_D = -39A, V_{GS} = -4V$		6.5	9.0	$m\Omega$
Input Capacitance	C_{iss}	$V_{DS} = -20V, f = 1MHz$		13200		pF
Output Capacitance	C_{oss}			1300		pF
Reverse Transfer Capacitance	C_{rss}			950		pF
Turn-ON Delay Time	$t_{d(on)}$			90		ns
Rise Time	t_r	See Fig.2		360		ns
Turn-OFF Delay Time	$t_{d(off)}$			1200		ns
Fall Time	t_f			680		ns
Total Gate Charge	Q_g	$V_{DS} = -36V, V_{GS} = -10V, I_D = -78A$		285		nC
Gate to Source Charge	Q_{gs}			35		nC
Gate to Drain 'Miller' Charge	Q_{gd}			70		nC
Diode Forward Voltage	V_{SD}		$I_S = -78A, V_{GS} = 0V$	-0.95	-1.5	
Reverse Recovery Time	t_{rr}	See Fig.3		150		ns
Reverse Recovery Charge	Q_{rr}	$I_S = -78A, V_{GS} = 0V, di/dt = -100A/\mu s$		470		nC

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

Fig.1 Unclamped Inductive Switching Test Circuit

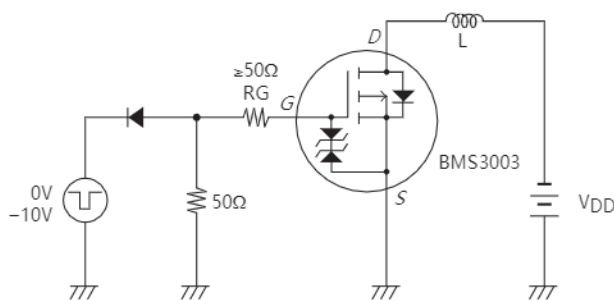


Fig.2 Switching Time Test Circuit

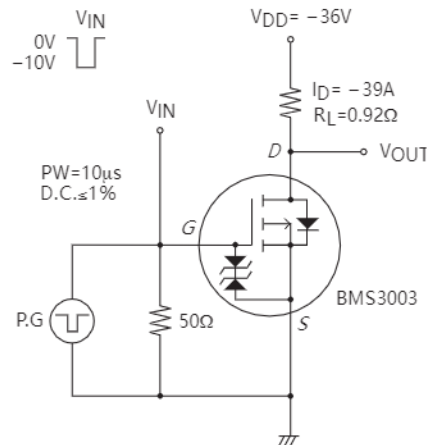
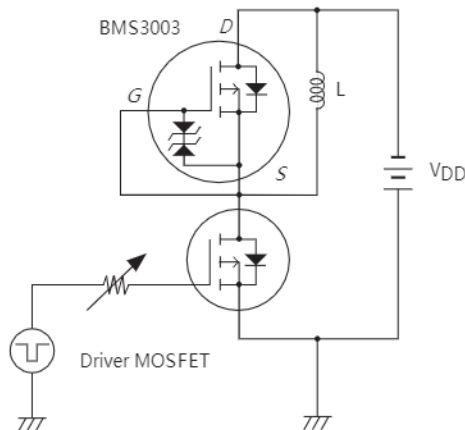


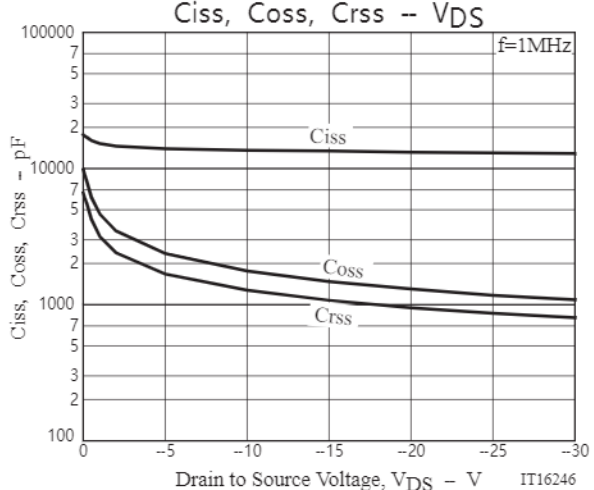
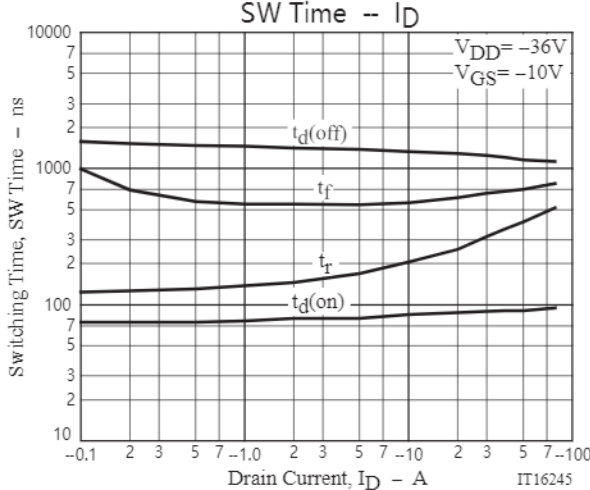
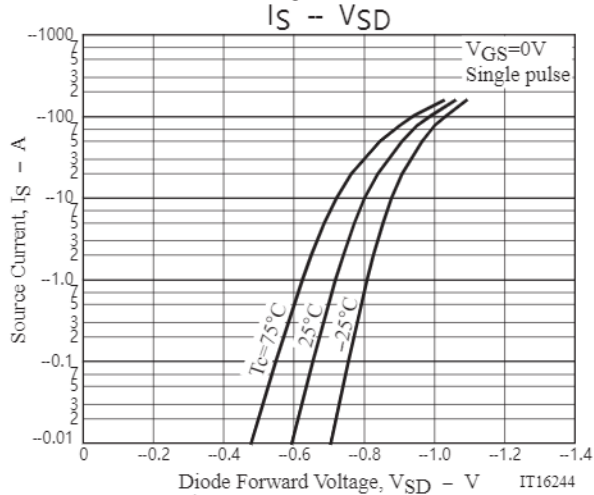
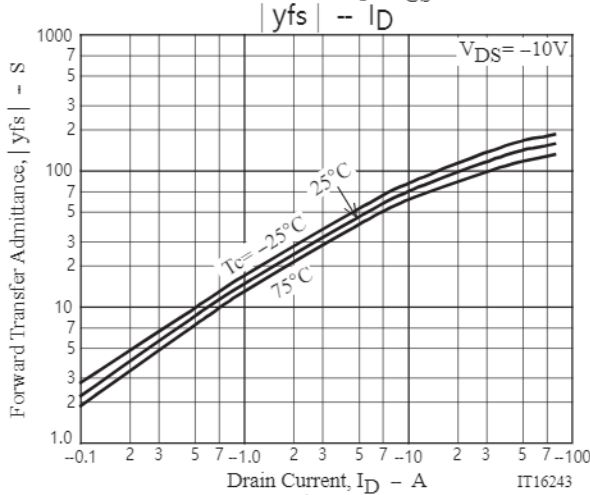
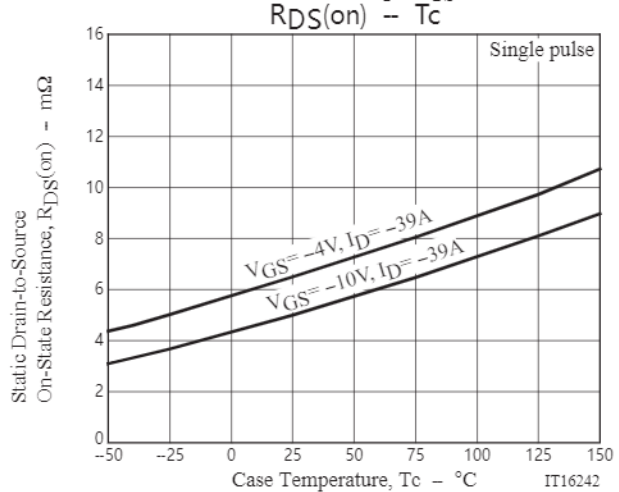
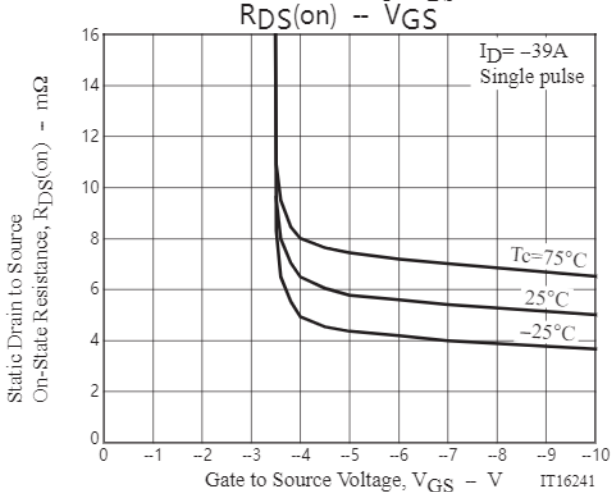
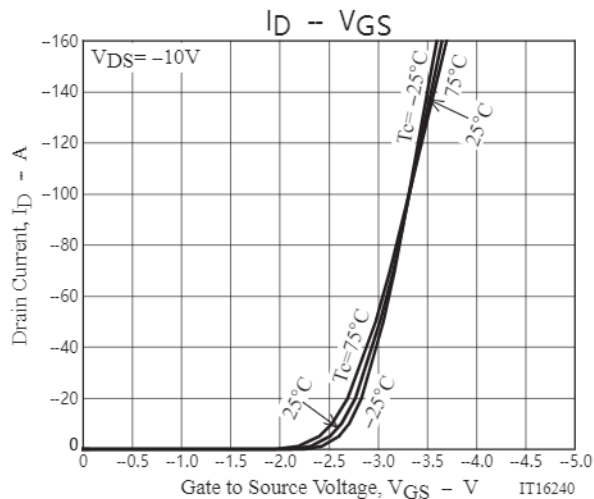
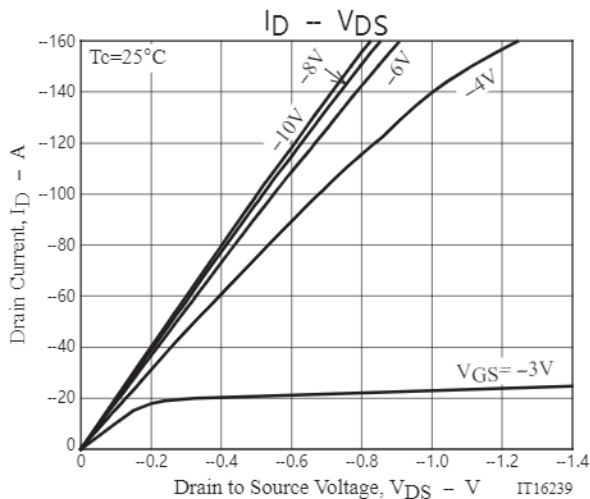
Fig.3 Reverse Recovery Time Test Circuit

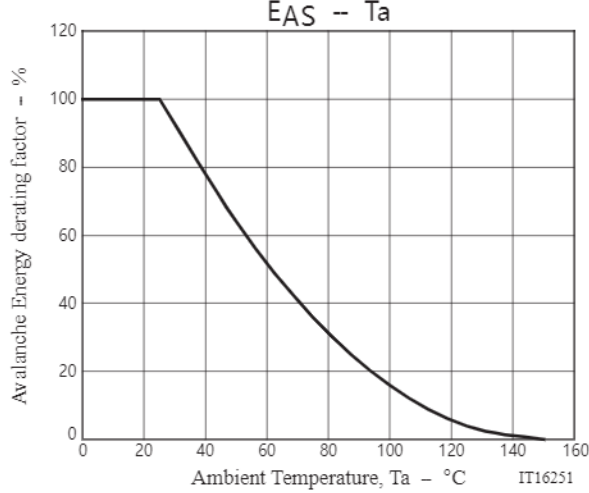
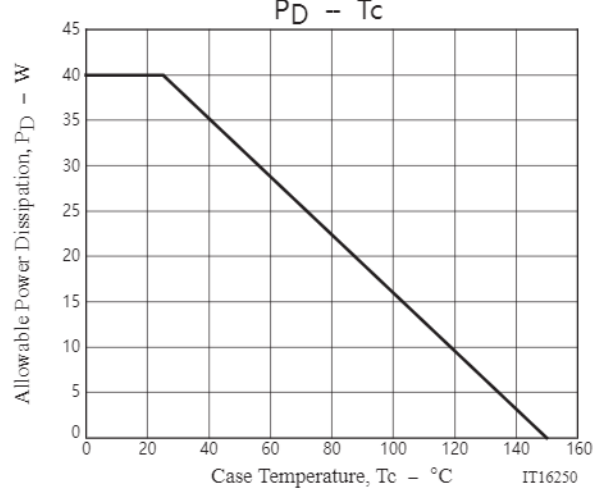
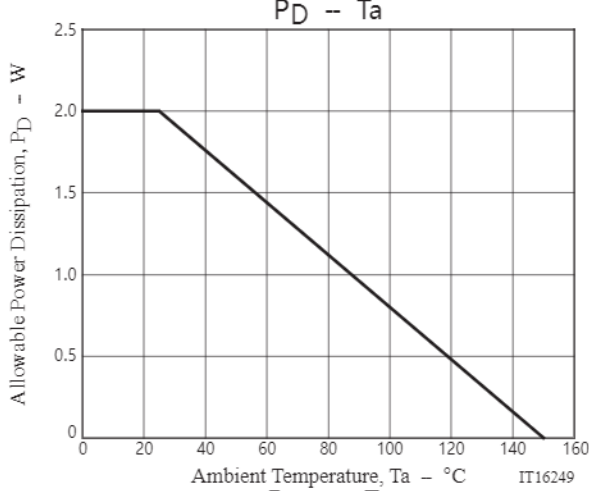
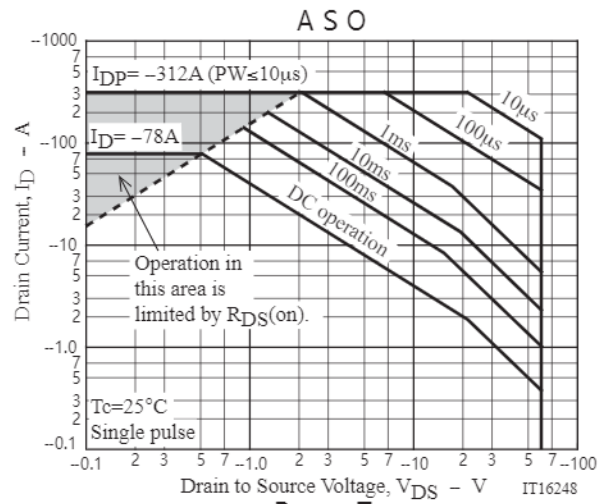
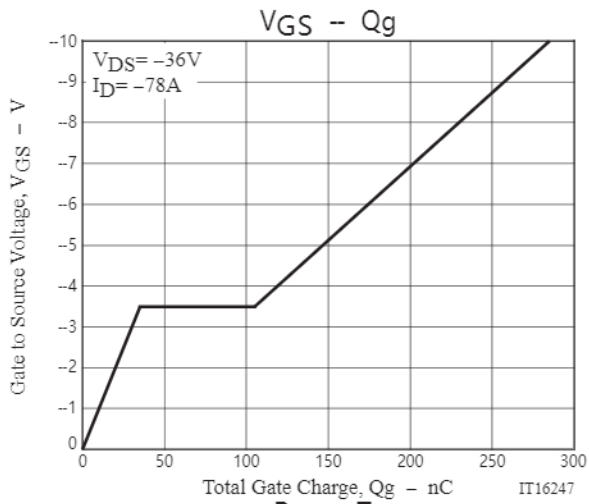


Ordering Information

Device	Package	Shipping	memo
BMS3003-1E	TO-220F-3SG	50pcs./tube	Pb Free

BMS3003

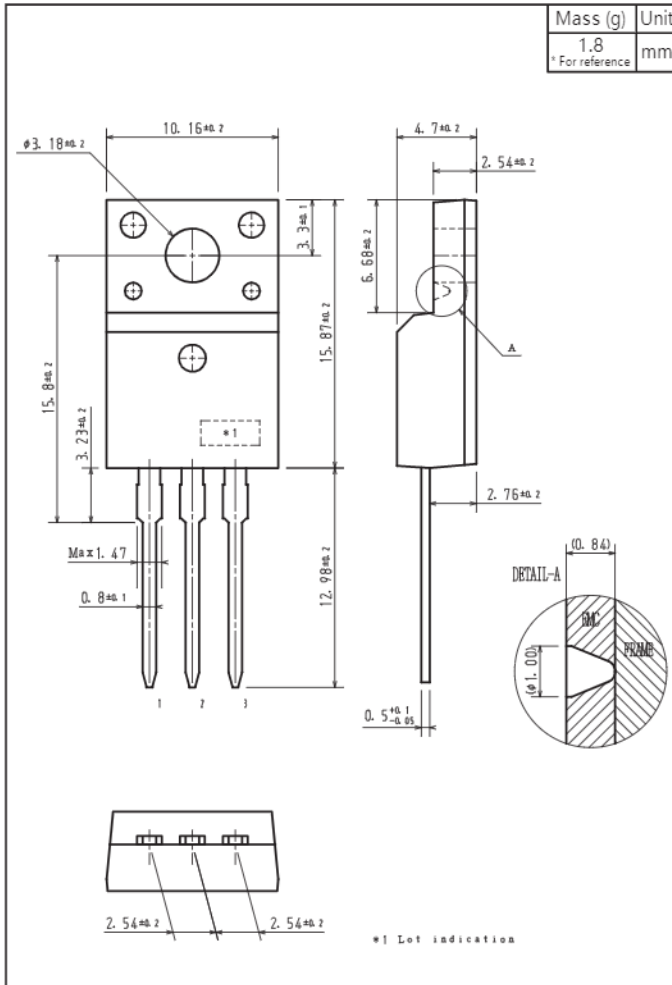




BMS3003

Outline Drawing

BMS3003-1E



Note on usage : Since the BMS3003 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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