

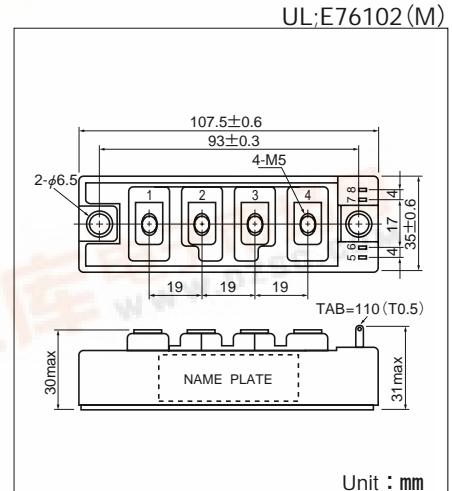
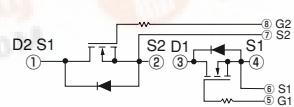
MOSFET MODULE**FBA75CA45/50**

FBA75CA45/50 is a dual power MOSFET module designed for fast switching applications of high voltage and current. (2 devices are serial connected.) The mounting base of the module is electrically isolated from semiconductor elements for simple heatsink construction.

- $I_D = 75A$, $V_{DSS} = 500V$
- Suitable for high speed switching applications.
- Low ON resistance.
- Wide Safe Operating Areas.

(Applications)

UPS(CVCF), Motor Control, Switching Power Supply, etc.



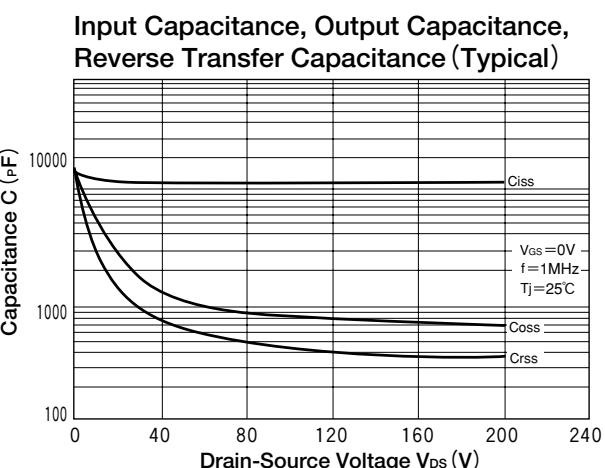
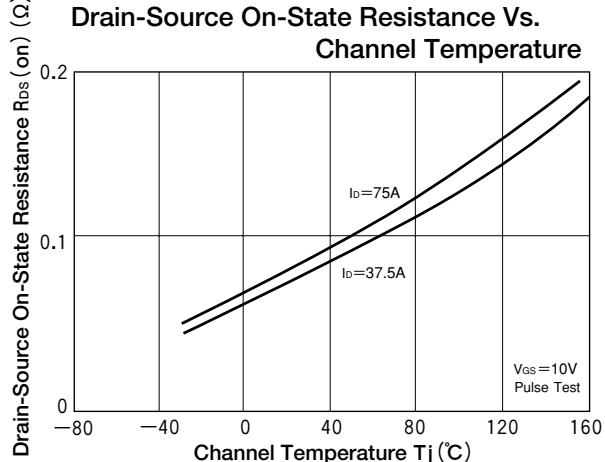
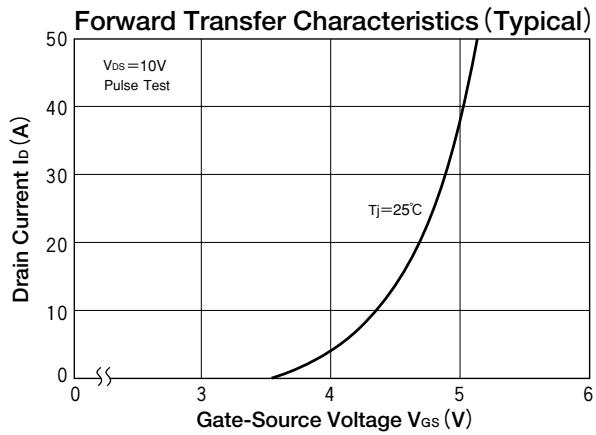
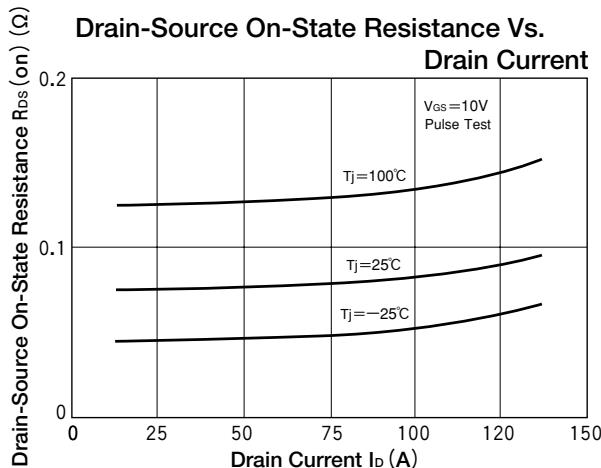
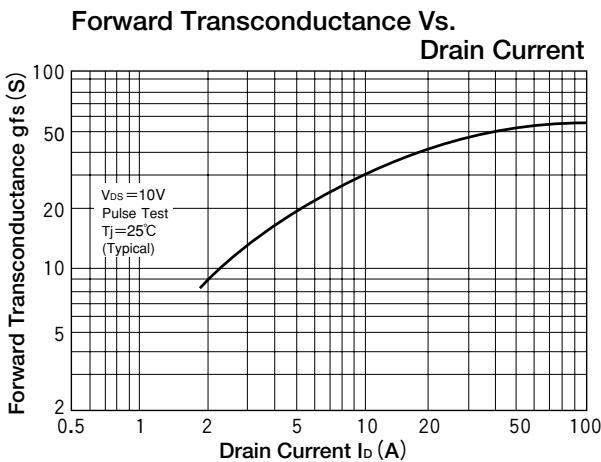
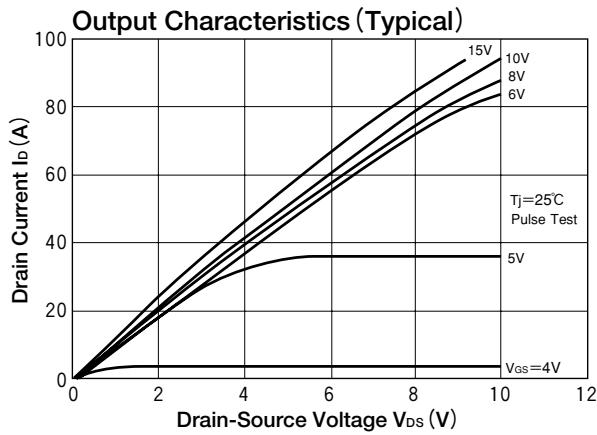
Unit : mm

(T_j=25°C unless otherwise specified)**■ Maximum Ratings**

Symbol	Item	Conditions	Ratings		Unit
			FBA75CA45	FBA75CA50	
V_{DSS}	Drain-Source Voltage		450	500	V
V_{GSS}	Gate-Source Voltage		± 20		V
I_D	Drain Current	D.C.	75	A	
	Pulse		150		
$-I_D$	Source Current		75	A	
P_T	Total Power Dissipation	$T_c=25^\circ C$	400	W	
T_j	Channel Temperature		150	$^\circ C$	
T_{stg}	Storage Temperature		-40 to +125		$^\circ C$
V_{iso}	Isolation Voltage (R.M.S.)	A.C. 1 minute	2500	V	
	Mounting Torque	Mounting (M6)	4.7 (48)	N·m (kgf·cm)	
		Terminal (M5)	2.7 (28)		
	Mass	Typical Value	220	g	

■ Electrical Characteristics(T_j=25°C unless otherwise specified)

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I_{GSS}	Gate Leakage Current	$V_{GS}=\pm 20V$, $V_{DS}=0V$			± 1.0	μA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{GS}=0V$, $V_{DS}=500V$			1.0	mA
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$FBA75CA45$ $FBA75CA50$	450			V
			500			
$V_{GS(th)}$	Gate-Source Threshold Voltage	$V_{DS}=V_{GS}$, $I_D=10mA$	1.0		5.0	V
$R_{DS(on)}$	Drain-Source On-State Resistance	$I_D=40A$, $V_{GS}=15V$			0.10	Ω
$V_{DS(on)}$	Drain-Source On-State Voltage	$I_D=40A$, $V_{GS}=15V$			4.0	V
g_{fs}	Forward Transconductance	$V_{DS}=10V$, $V_D=40A$		40		S
C_{iss}	Input Capacitance	$V_{GS}=0V$, $V_{DS}=25V$, $f=1.0MHz$			13500	pF
C_{oss}	Output Capacitance	$V_{GS}=0V$, $V_{DS}=25V$, $f=1.0MHz$			2500	pF
C_{rss}	Reverse Transfer Capacitance	$V_{GS}=0V$, $V_{DS}=25V$, $f=1.0MHz$			1000	pF
$t_d(on)$	Turn-on Delay Time	$R_L=7.5\Omega$, $R_{GS}=50\Omega$, $V_{GS}=15V$ $I_D=40A$, $R_G=5\Omega$		60		ns
				120		
				700		
				210		
V_{SDS}	Diode Forward Voltage	$-I_D=40A$, $V_{GS}=0V$			1.5	V
t_{rr}	Reverse Recovery Time	$-I_D=40A$, $V_{GS}=0V$, $di/dt=100A/\mu s$		700		ns
$R_{th(j-c)}$	Thermal Resistance				0.31	$^\circ C/W$



FBA75CA45/50

