

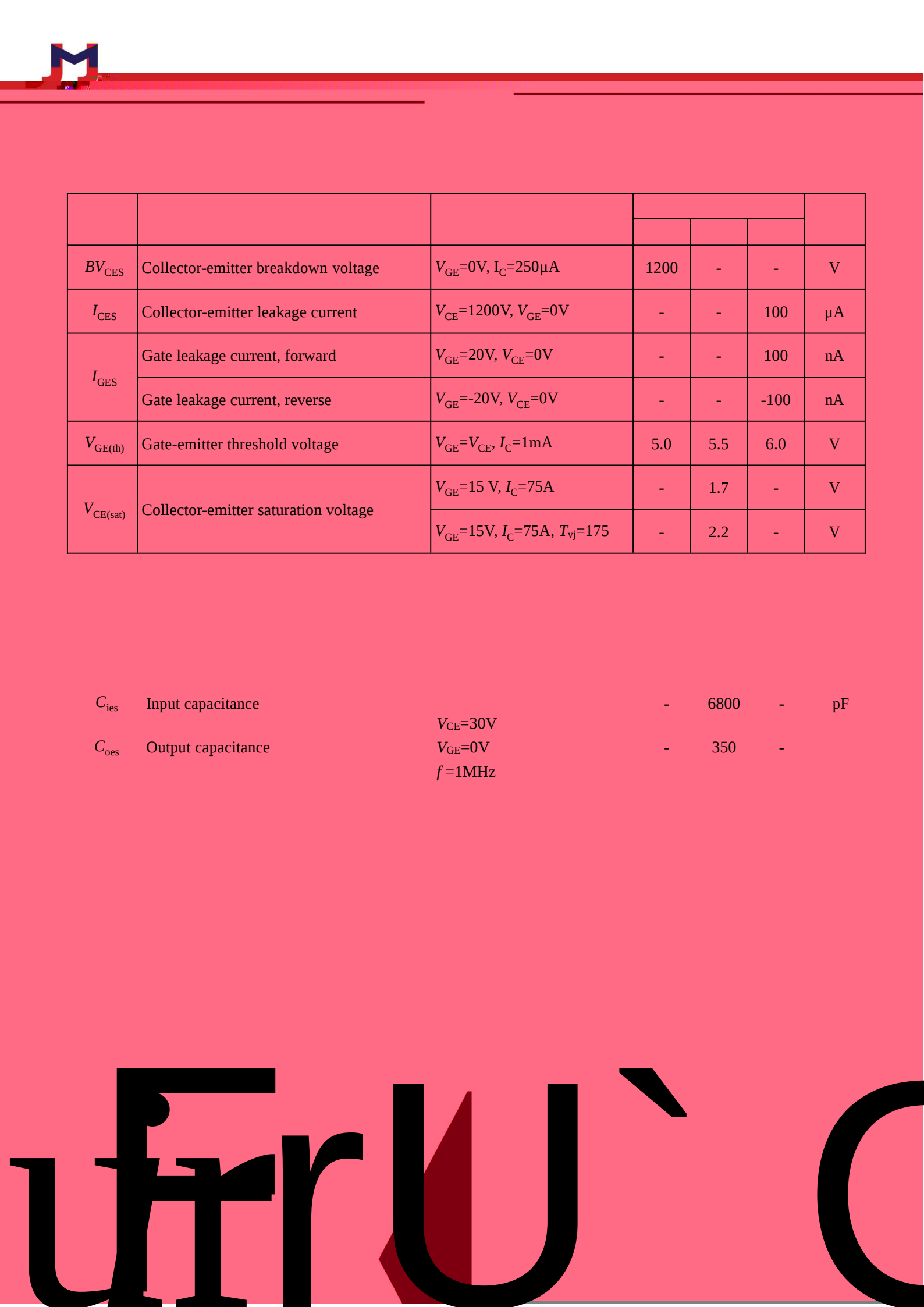
- $V_{CE} = 1200V$
- $= ^\circ$



V_{CES}	Collector-emitter voltage	1200	V
V_{GES}	Gate-emitter voltage	± 20	V
I_C	Continuous collector current ($T_C=25\text{ }^{\circ}\text{C}$)	150	A
	Continuous collector current ($T_C=100\text{ }^{\circ}\text{C}$)	75	A
I_{CM}	Pulsed collector current, t_p limited by T_{vjmax}	300	A
I_F	Diode continuous forward current ($T_C=100\text{ }^{\circ}\text{C}$)	75	A
I_{FM}	Diode maximum current, t_p limited by T_{vjmax}	150	A
t_{sc}	Short circuit withstand time	10	μs
P_{tot}	Power dissipation ($T_C=25\text{ }^{\circ}\text{C}$)	882	W
	Power dissipation ($T_C=100\text{ }^{\circ}\text{C}$)	441	W
T_{vj}	Operating junction temperature range	-40 to +175	
T_{stg}	Storage temperature range	-55 to +150	

$R_{th(j-c)}$	Thermal resistance, junction to case for IGBT	-	0.17	K/ W
$R_{th(j-c)}$	Thermal resistance, junction to case for Diode	-	0.35	K/ W
$R_{th(j-a)}$	Thermal resistance, junction to ambient	-	40	K/ W





BV_{CES}	Collector-emitter breakdown voltage	$V_{GE}=0V, I_C=250\mu A$	1200	-	-	V
I_{CES}	Collector-emitter leakage current	$V_{CE}=1200V, V_{GE}=0V$	-	-	100	μA
I_{GES}	Gate leakage current, forward	$V_{GE}=20V, V_{CE}=0V$	-	-	100	nA
	Gate leakage current, reverse	$V_{GE}=-20V, V_{CE}=0V$	-	-	-100	nA
$V_{GE(th)}$	Gate-emitter threshold voltage	$V_{GE}=V_{CE}, I_C=1mA$	5.0	5.5	6.0	V
$V_{CE(sat)}$	Collector-emitter saturation voltage	$V_{GE}=15V, I_C=75A$	-	1.7	-	V
		$V_{GE}=15V, I_C=75A, T_{vj}=175$	-	2.2	-	V

C_{ies}	Input capacitance	$V_{CE}=30V$	-	6800	-	pF
C_{oes}	Output capacitance	$V_{GE}=0V$ $f=1MHz$	-	350	-	





($T_{vj}=25$ unless otherwise specified)

V_F	Diode forward voltage	$I_F=75A$	-	1.8	-	V
		$I_F=75A \quad T_{vj}=175$	-	1.5	-	V
t_{rr}	Diode reverse recovery time	$V_R=600V$ $I_F=75A$ $di_F/dt=-200A/\mu s$	-	364	-	ns
I_{rrm}	Diode peak reverse recovery current		-	11	-	A
Q_{rr}	Diode reverse recovery charge		-	2300	-	nC
t_{rr}	Diode reverse recovery time	$V_R=600V$ $I_F=75A$ $di_F/dt=-200A/\mu s$ $T_{vj}=175$	-	576	-	ns
I_{rrm}	Diode peak reverse recovery current		-	23	-	A
Q_{rr}	Diode reverse recovery charge		-	8300	-	nC

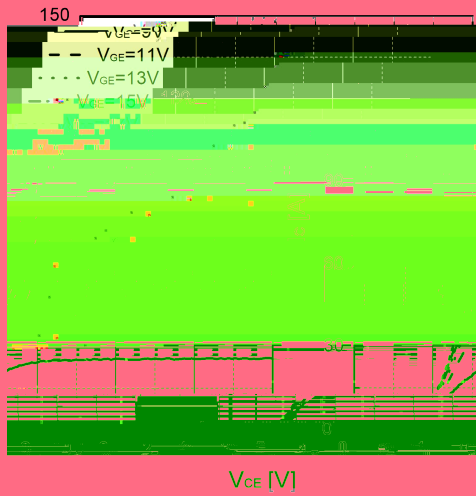


Fig 1. Typical output characteristic ($T_{vj}=25^{\circ}\text{C}$)



Fig 2. Typical output characteristic ($T_{vj}=175^{\circ}\text{C}$)

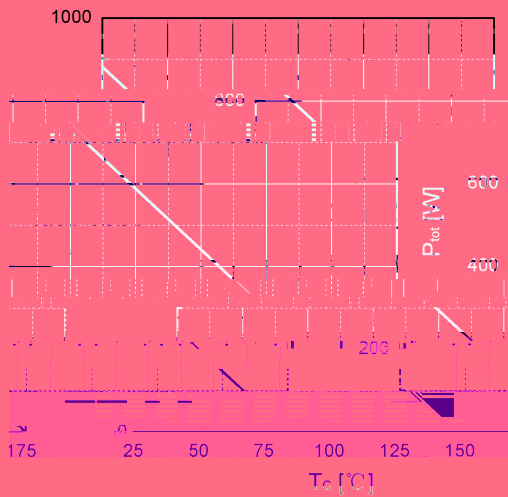


Fig 3. Power dissipation as a function of T_C

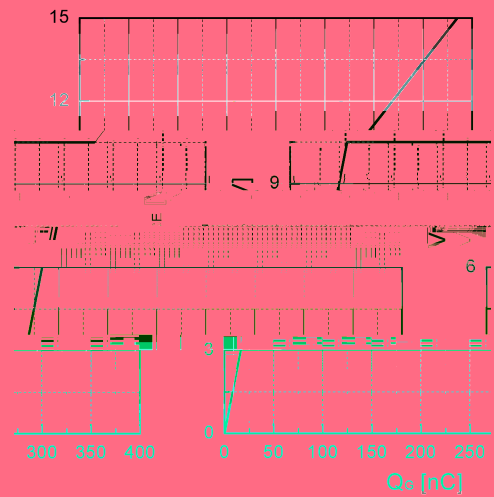


Fig 4. Typical Gate charge

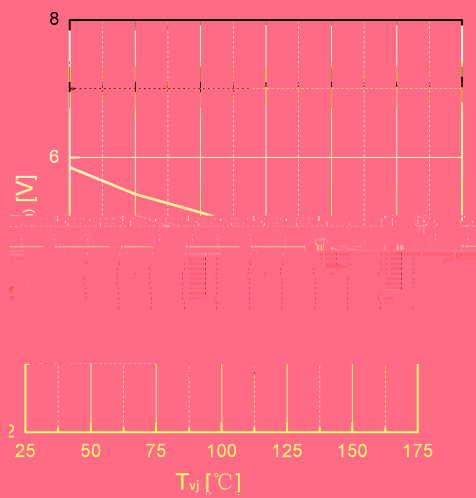


Fig 5. Typical $V_{GE(th)}$ as a function of T_{vj}
($I_C=1\text{mA}$)

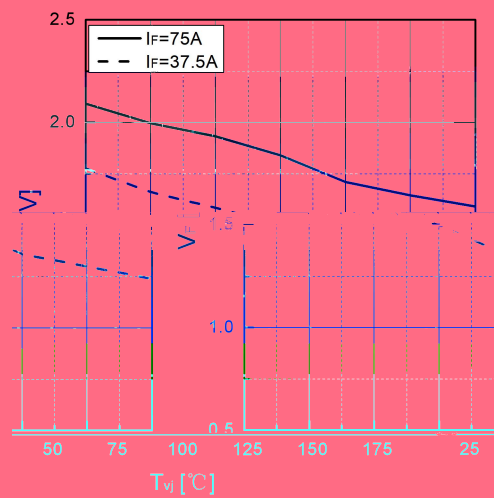


Fig 6. Typical V_F as a function of T_{vj}

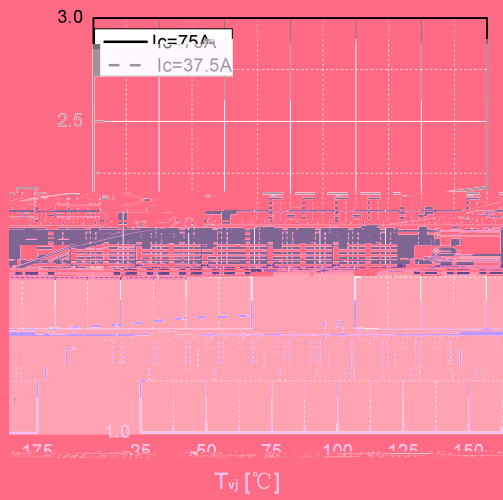


Fig 7. Typical V_{CEsat} as a function of T_{vj}

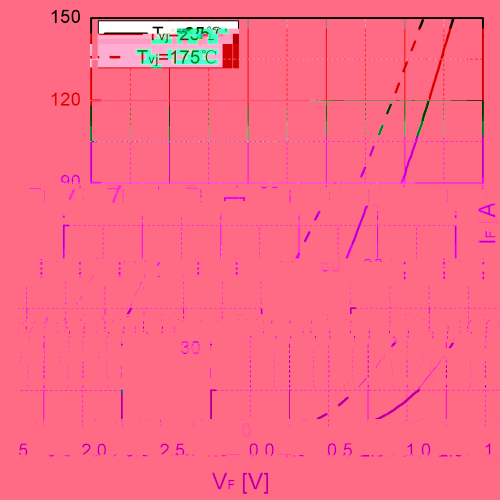


Fig 8. Typical I_F as a function of V_F

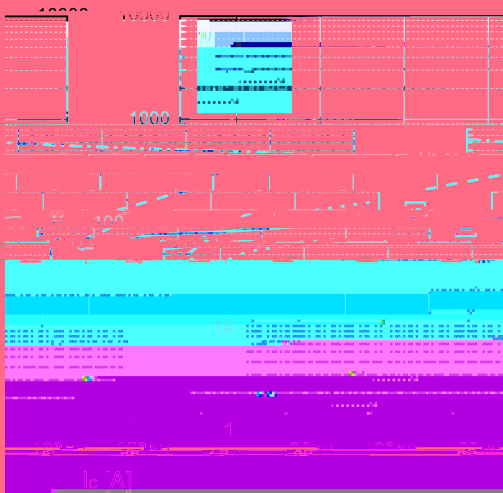


Fig 9. Typical switching time as a function of I_C

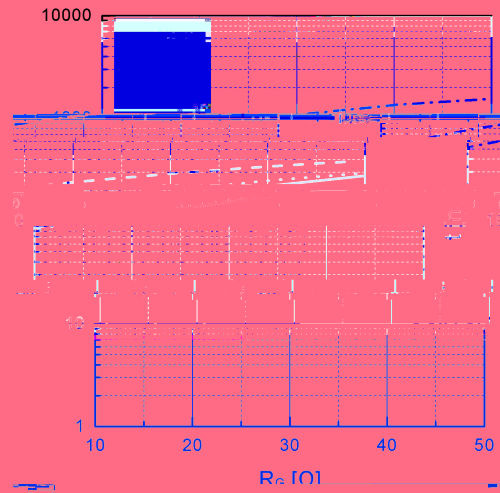


Fig 10. Typical switching times as a function of R_G

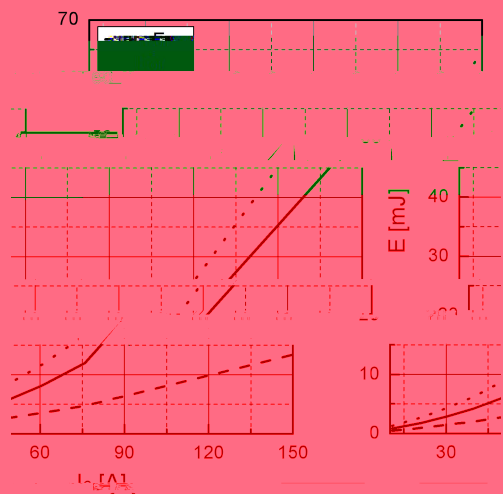


Fig 11. Typical switching energy losses as a function of I_C

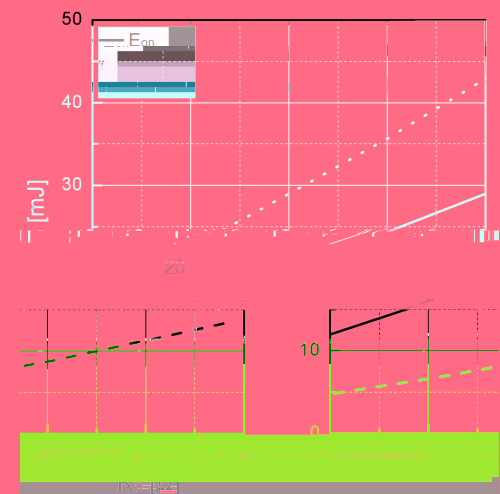


Fig 12. Typical switching energy losses as a function of R_G

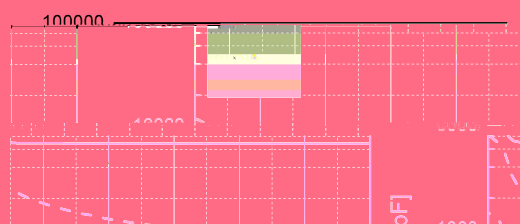


Fig 13. Typical capacitance as a function of V_{CE}
($f=1\text{Mhz}$, $V_{GE}=0\text{V}$)





Date	Revision	Changes
2024-08-26	Rev. 1.2	Update
2025-02-17	Rev. 1.3	Modify the package size
2025-03-03	Rev. 2.0	Replace sketch

PLEASE NOTE - Jiangsu JieJie Microelectronics Co., Ltd ("JJM") reserves the right to amend, correct, modify and enhance the product and/or this document at any time without prior notice. If you intend to purchase this product, please obtain the latest information available before placing your order. The sale of JJM products is governed by JJM's prevailing terms and conditions at the time of purchase and purchasers are solely responsible for the selection and use of the products with no liability on JJM's part to supply application assistance or customization. Purchase of JJM products does not grant the purchaser license, express or implied, to JJM's intellectual property. Any warranties provided with JJM products are null and void upon resale unless accompanied by the information set forth herein in its entirety. The JJM name and logo are registered trademarks of Jiangsu JieJie Microelectronics Co., Ltd. This document supersedes all previous versions. ©2025 JJM - All rights reserved