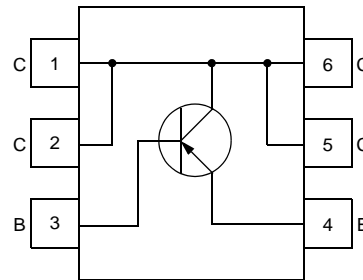
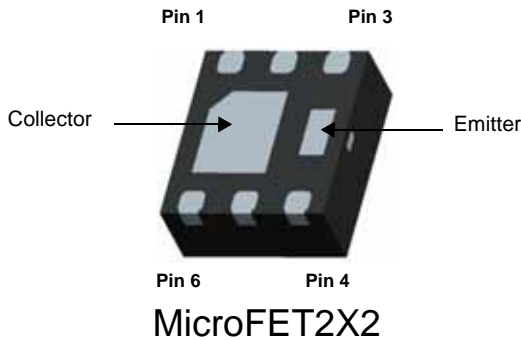


FJMA790

PNP Epitaxial Silicon Transistor

High current surface mount PNP silicon switching transistor for load management in portable applications

- High Collector current
- Low Collector-Emitter Saturation Voltage
- RoHS Compliant



Absolute Maximum Ratings $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-35	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current (DC)	-2	A
P_D	Power Dissipation	Note1)	1.56
		Note2)	0.8
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

Thermal Characteristics $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Max.	Units
$R_{\Theta JA}$	Thermal Resistance, Junction to Ambient	Note1)	80
		Note2)	154

Note1): The device mounted on a 1inch² pad of 2 oz copper pad on a 1.5 × 1.5 in. board of FR-4 material.

Note2): The device mounted on a minimum pad of 2 oz copper pad on a 1.5 × 1.5 in. board of FR-4 material

Electrical Characteristics $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -100\mu\text{A}, I_E = 0$	-50			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}, I_B = 0$	-35			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_C = -100\mu\text{A}, I_C = 0$	-5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -35\text{V}, I_C = 0$			-0.1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	μA
h_{FE}	DC Current Gain	$V_{CE} = -1.5\text{V}, I_C = -1\text{A}$ $V_{CE} = -1.5\text{V}, I_C = -1.5\text{A}$ $V_{CE} = -3\text{V}, I_C = -2\text{A}$ $V_{CE} = -2\text{V}, I_C = -500\text{mA}$	100 100 100 100		400	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -500\text{mA}, I_B = -5\text{mA}$ $I_C = -1\text{A}, I_B = -10\text{mA}$ $I_C = -2\text{A}, I_B = -50\text{mA}$			-250 -350 -450	mV mV mV
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -1\text{A}, I_B = -10\text{mA}$			-0.9	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = -2\text{V}, I_C = -1\text{A}$			-0.9	V

Package Marking and Ordering Information

Device Marking	Device	Package	Reel Size	Tape Width	Quantity
790	FJMA790	MLP 2x2 Single	7"	8mm	3,000 units

Typical Characteristics

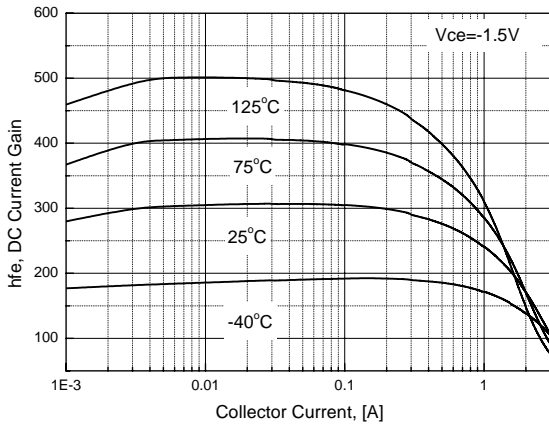


Figure 1. DC Current Gain, Vce=1.5V

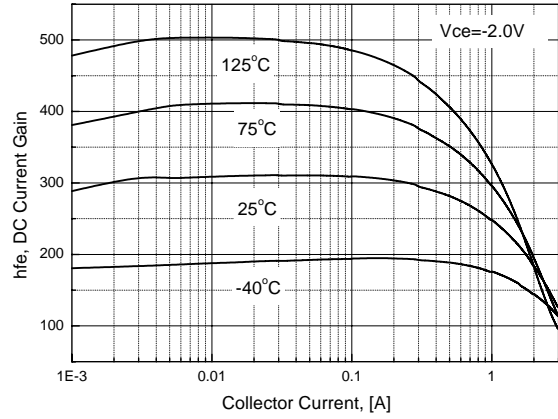


Figure 2. DC Current Gain, Vce=2V

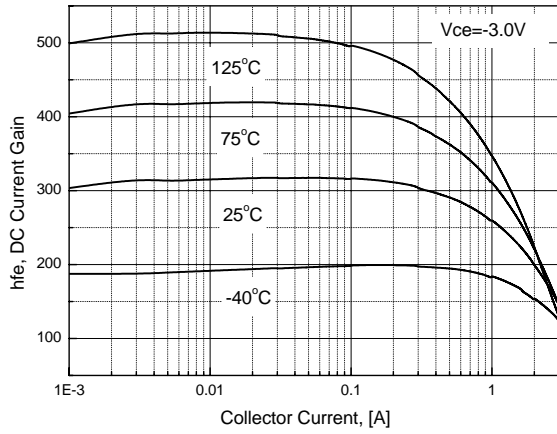


Figure 3. DC Current Gain, Vce=3V

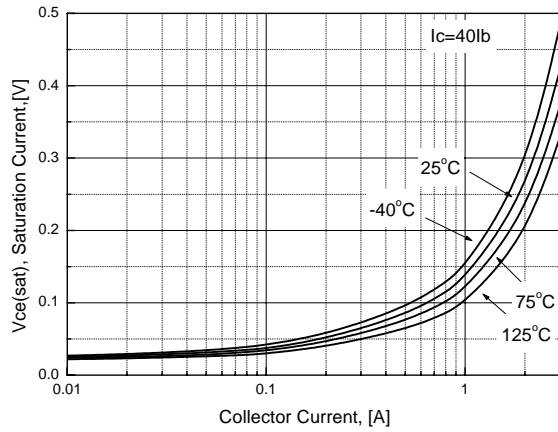


Figure 4. Collector-Emitter Saturation Voltage(1)

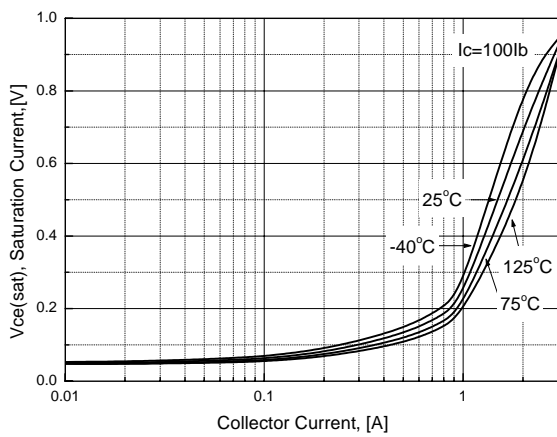


Figure 5. Collector-Emitter Saturation Voltage(2)

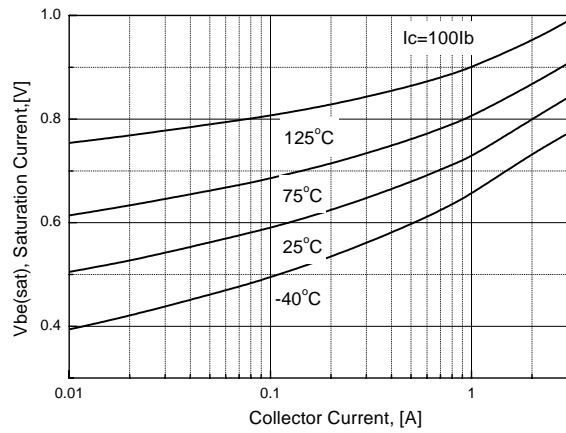


Figure 6. Base-Emitter Saturation Voltage

Typical Performance Characteristics (Continued)

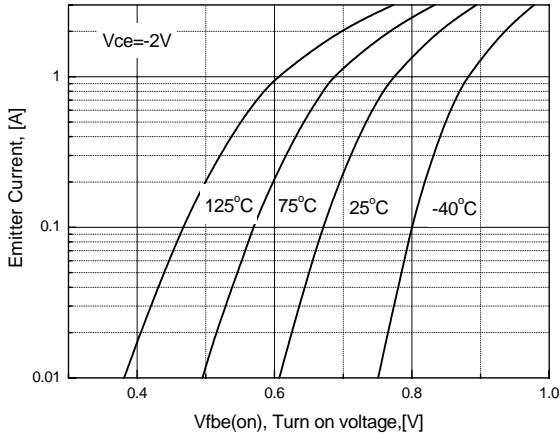


Figure 7. Base- Emitter Turn On Voltage

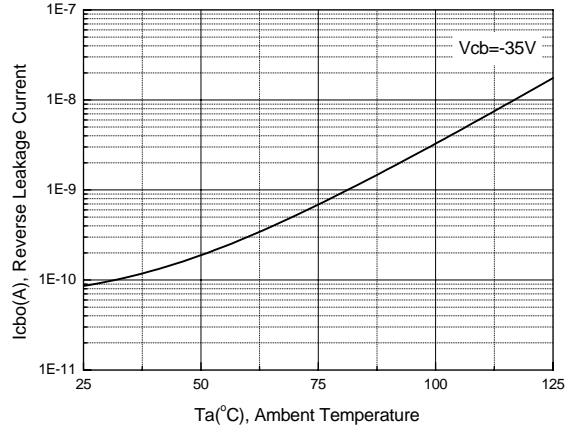


Figure 8. Collector-Base Leakage Current

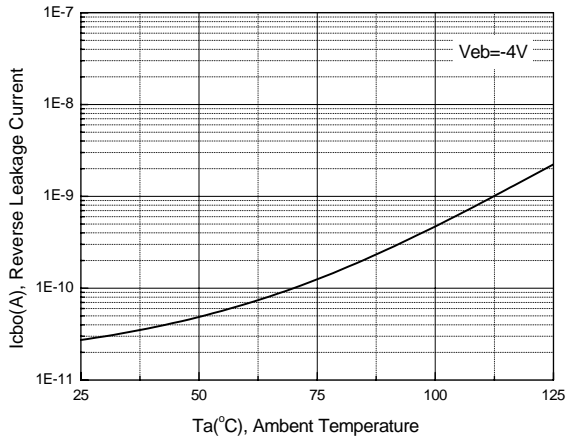


Figure 9. Base-Emitter Leakage Current

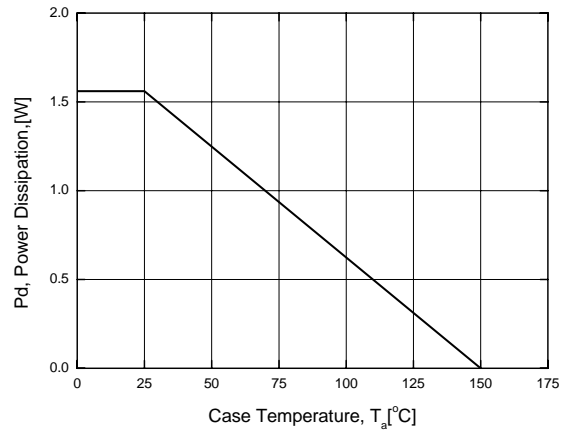


Figure 10. Power Derating

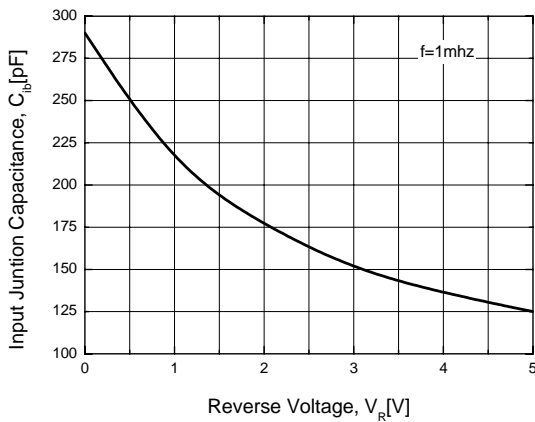


Figure 11. Input Capacitance

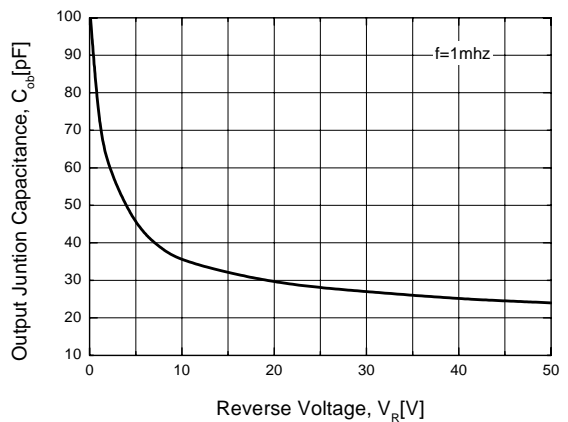
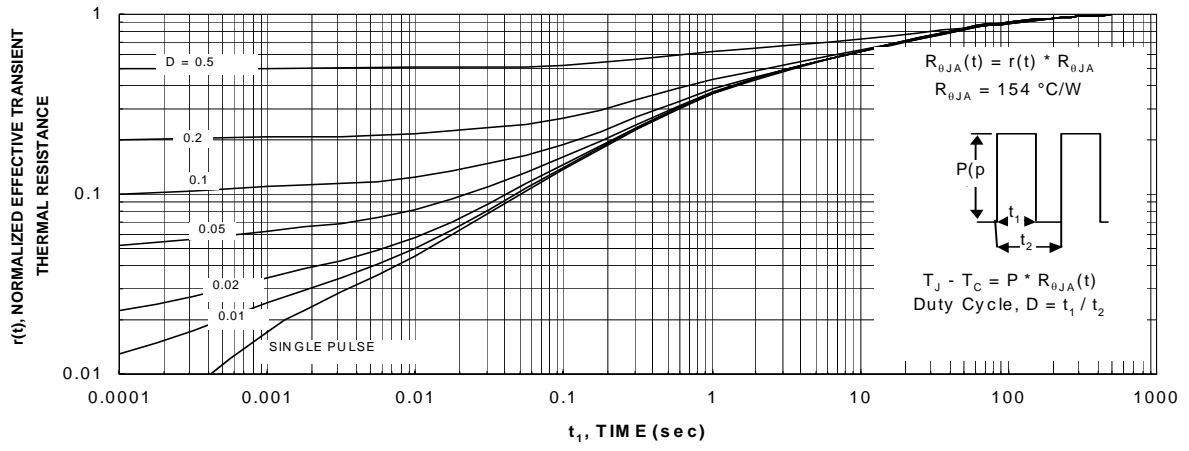


Figure 12. Output Capacitance

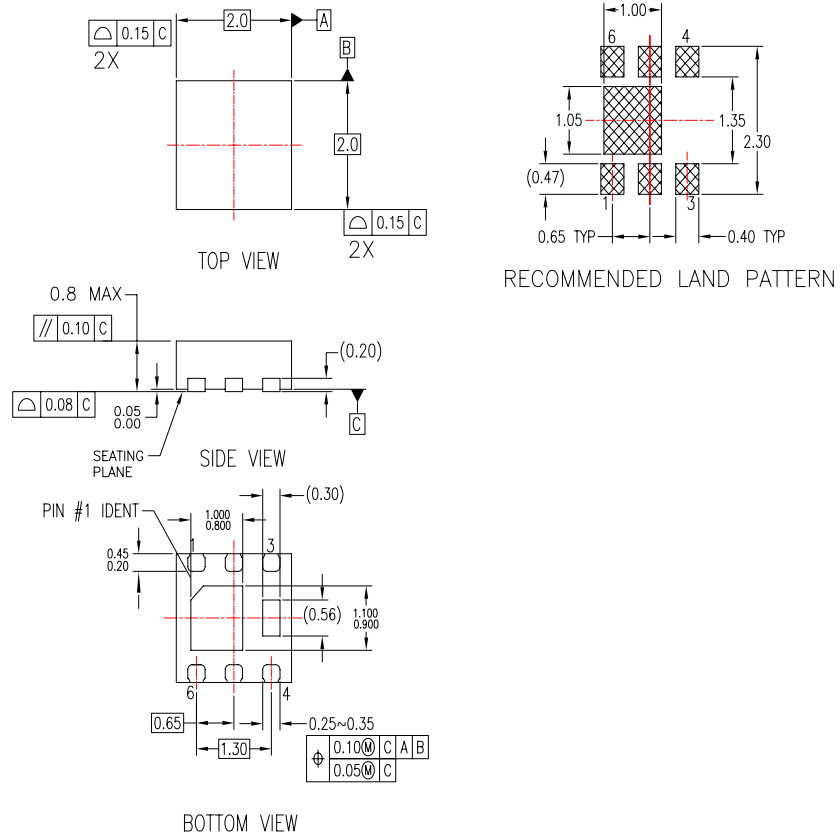
Typical Performance Characteristics (Continued)

Figure 12. Transient Thermal Response



Mechanical Dimensions

MicroFET2X2



NOTES:

- A. NOT FULLY CONFORM TO JEDEC REGISTRATION MO-229 DATED AUG/2003
- B. DIMENSIONS ARE IN MILLIMETERS.
- C. DIMENSIONS AND TOLERANCES PER ASME Y14.5M, 1994

MLP06LrevA

Dimensions in Millimeters

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CROSSVOLT TM	GTO TM	MICROWIRE TM	QT Optoelectronics TM	TCM TM
DOMET TM	HiSeC TM	MSX TM	Quiet Series TM	TinyLogic [®]
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E ² C _{MOS} TM	i-Lo TM	OCX TM	RapidConnect TM	TruTranslation TM
EnSigna TM	ImpliedDisconnect TM	OCXPro TM	μSerDes TM	UHC TM
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FACT Quiet Series TM		OPTOPLANAR TM	SILENT SWITCHER [®]	UniFET TM
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Rev. 119