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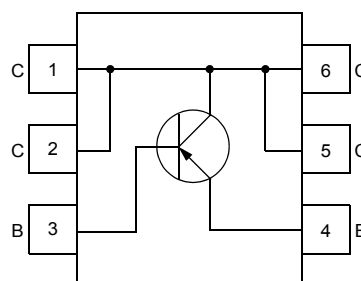
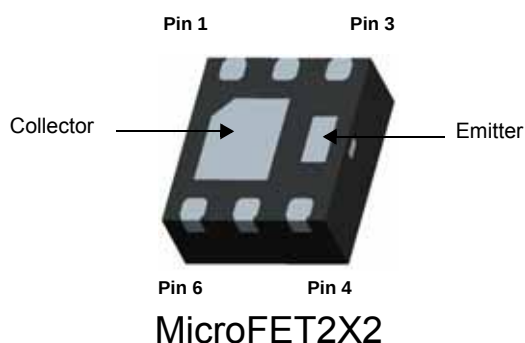


FJMA790

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	W W
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	80 154	$^\circ\text{C/W}$ $^\circ\text{C/W}$

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

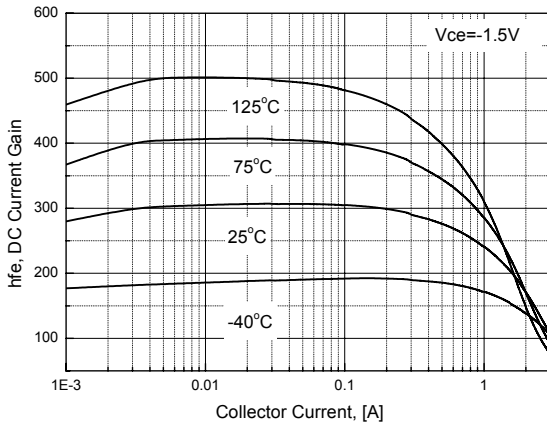


Figure 1. DC Current Gain, $V_{ce}=1.5V$

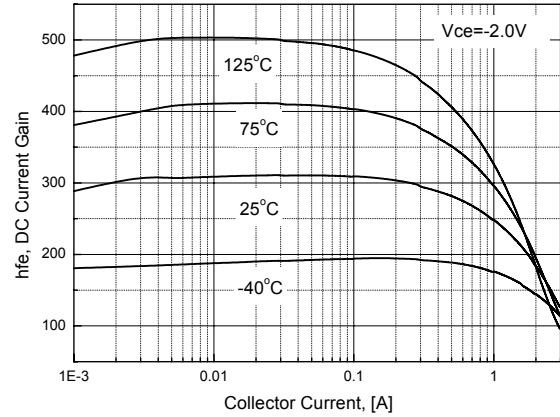


Figure 2. DC Current Gain, $V_{ce}=2V$

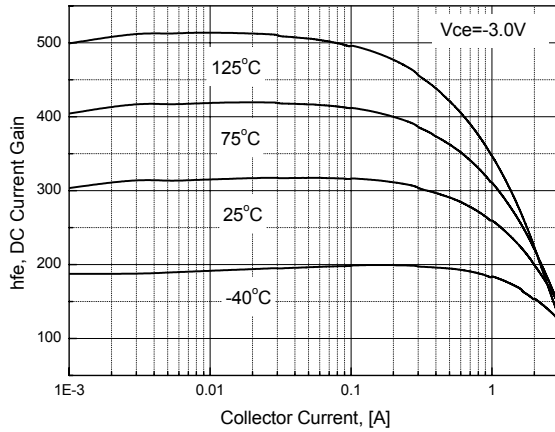


Figure 3. DC Current Gain, $V_{ce}=3V$

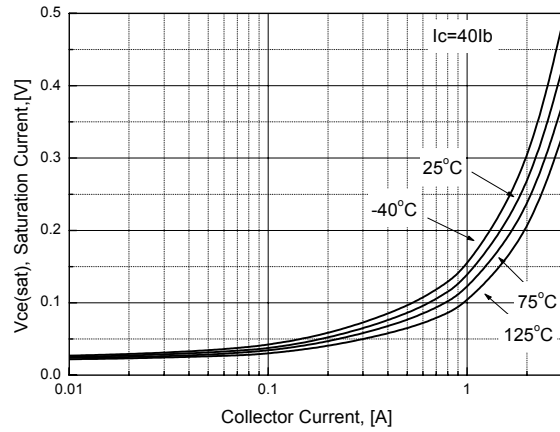


Figure 4. Collector-Emitter Saturation Voltage(1)

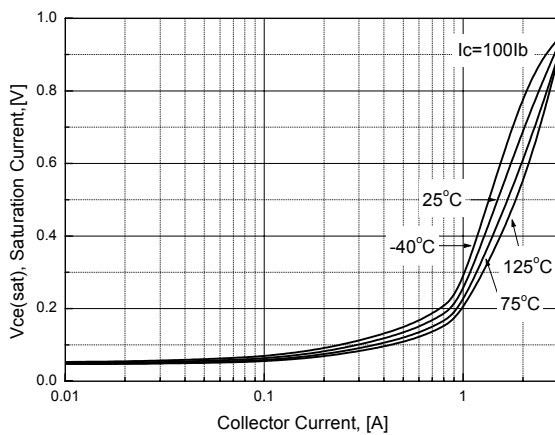


Figure 5. Collector-Emitter Saturation Voltage(2)

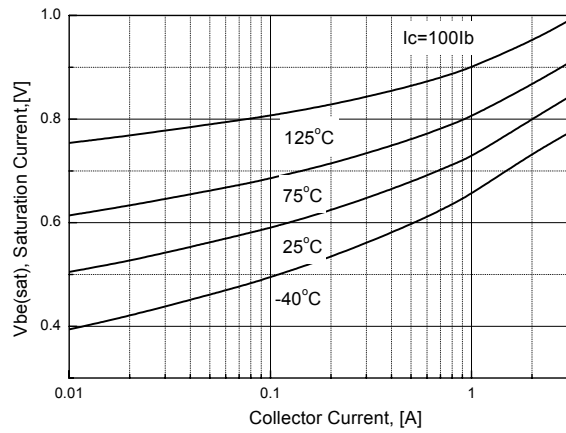


Figure 6. Base-Emitter Saturation Voltage

Typical Performance Characteristics (Continued)

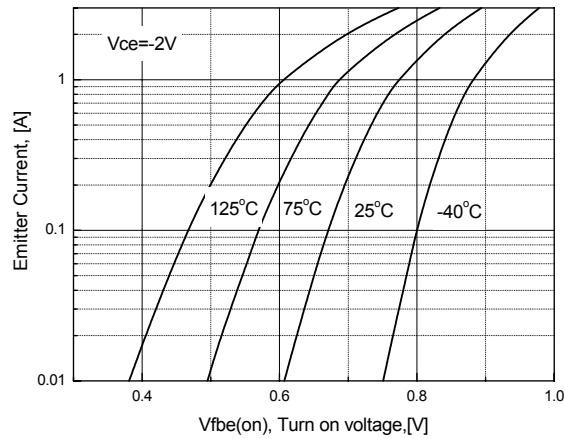


Figure 7. Base- Emitter Turn On Voltage

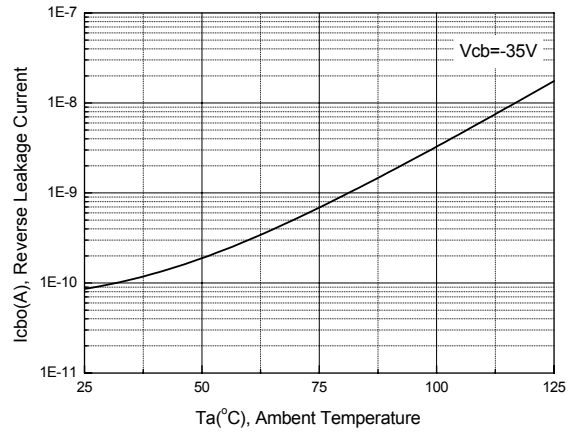


Figure 8. Collector-Base Leakage Current

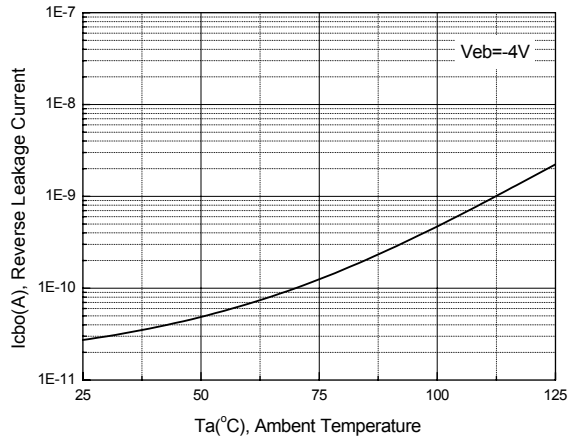


Figure 9. Base-Emitter Leakage Current

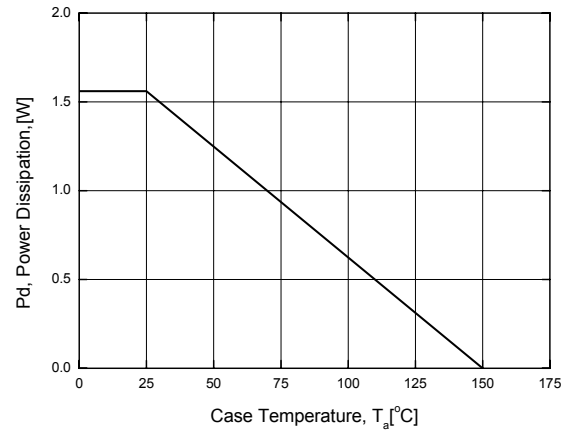


Figure 10. Power Derating

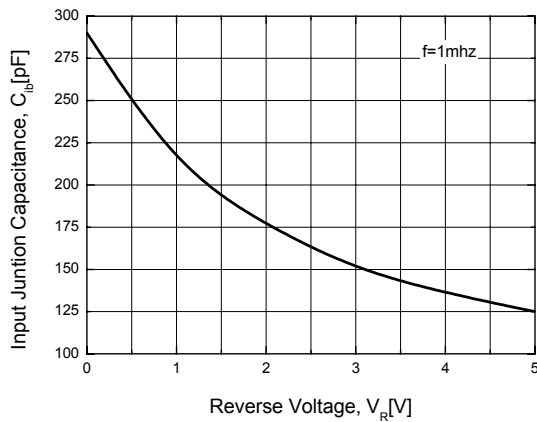


Figure 11. Input Capacitance

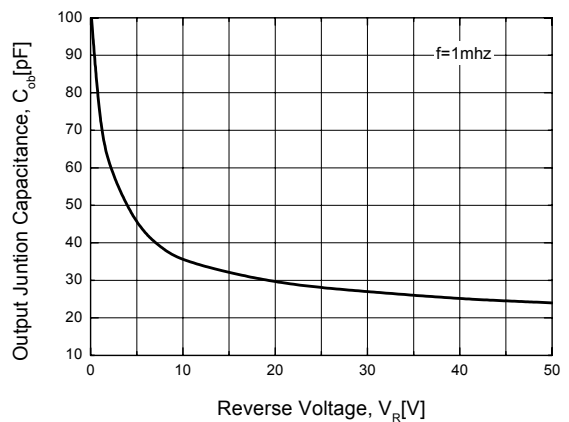
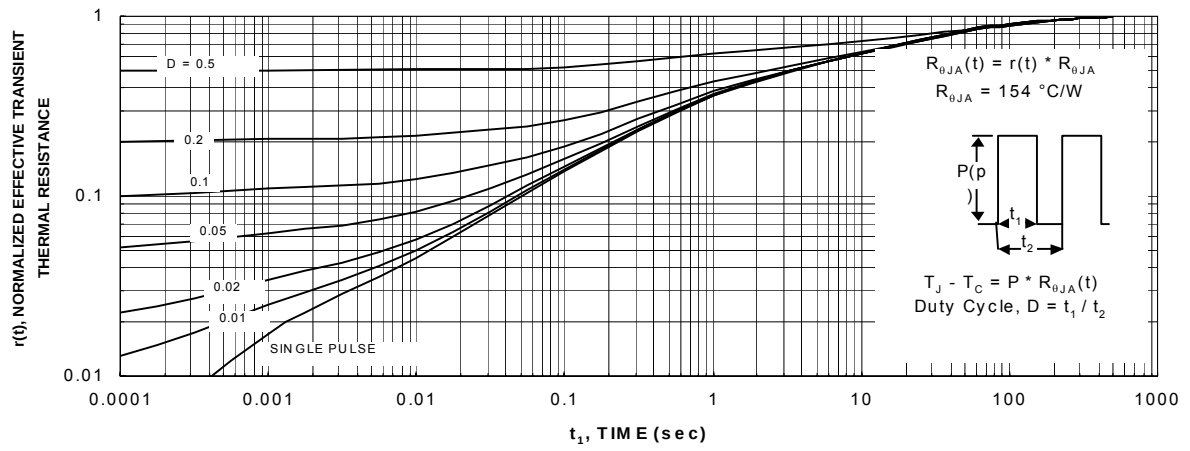
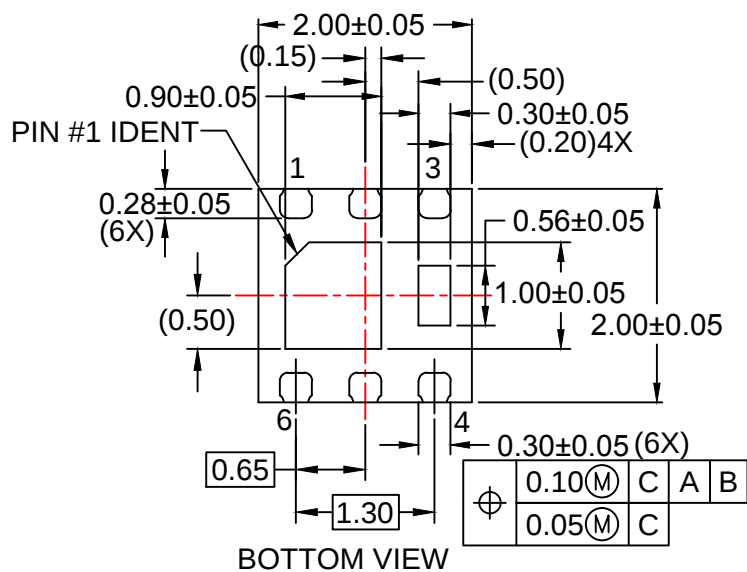
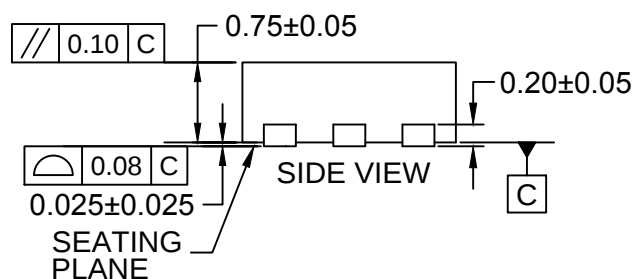
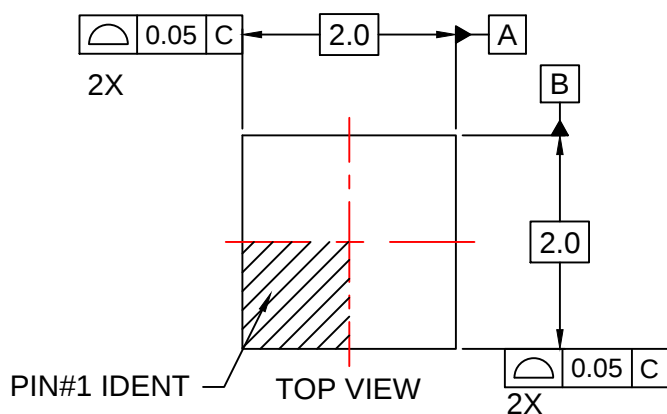


Figure 12. Output Capacitance

Typical Performance Characteristics (Continued)

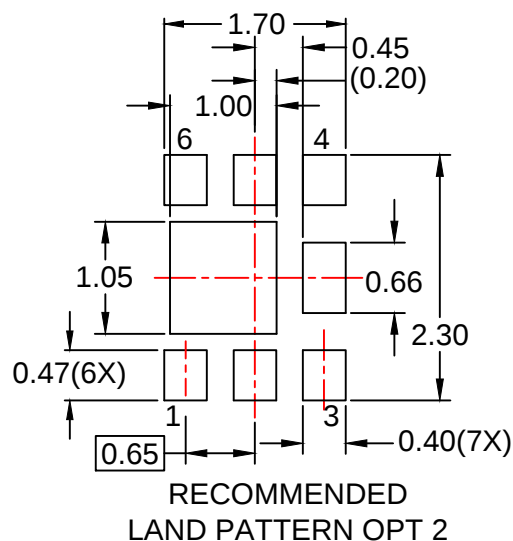
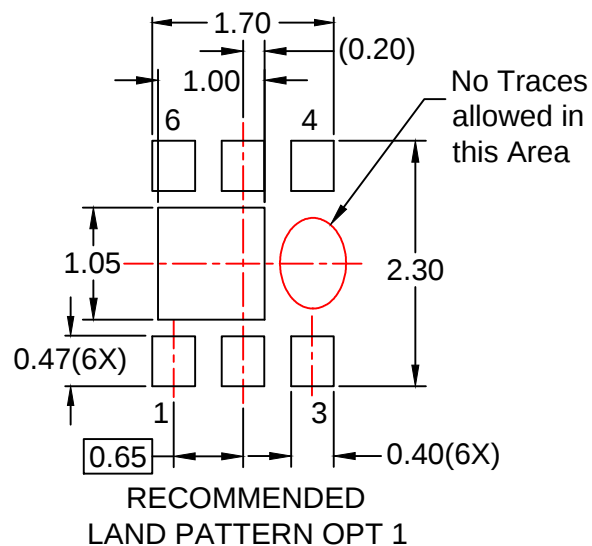
Figure 12. Transient Thermal Response





NOTES:

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