

**SOT-23 BIPOLAR TRANSISTORS
TRANSISTOR(NPN)**

FEATURES

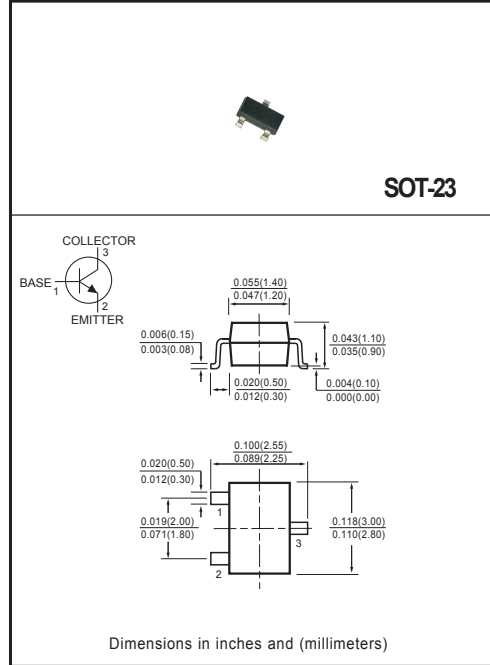
- * Power dissipation
P_{CM} : □ 0.5 □ W (T_{amb}=25°C)
- * Collector current
I_{CM} : □ 1 □ A
- * Collector-base voltage
V_{(BR)CBO} : □ 80 □ V
- * Operating and storage junction temperature range
T_J, T_{stg}: -55°C to +150°C

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.008 gram
- * Marking: 491

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase , half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

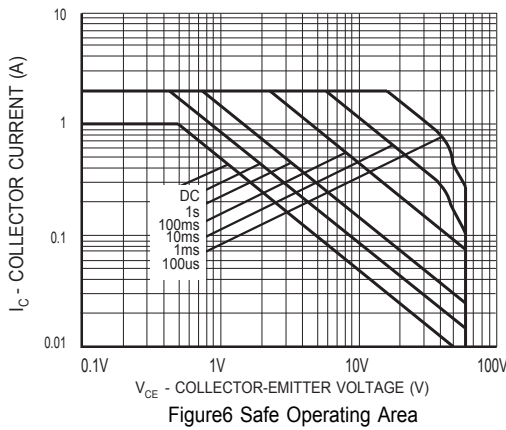
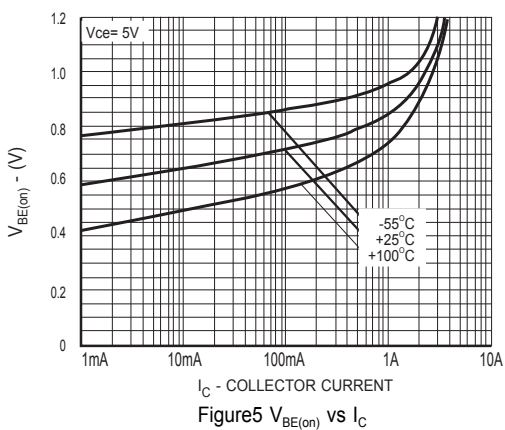
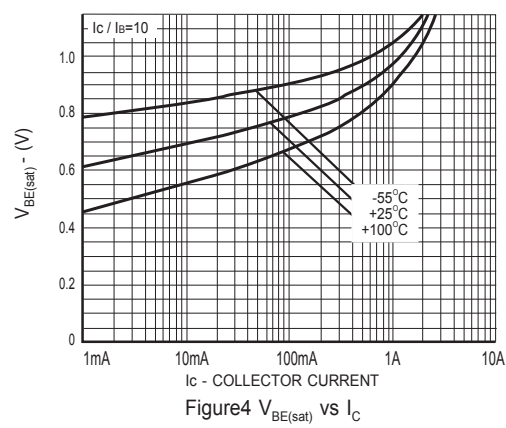
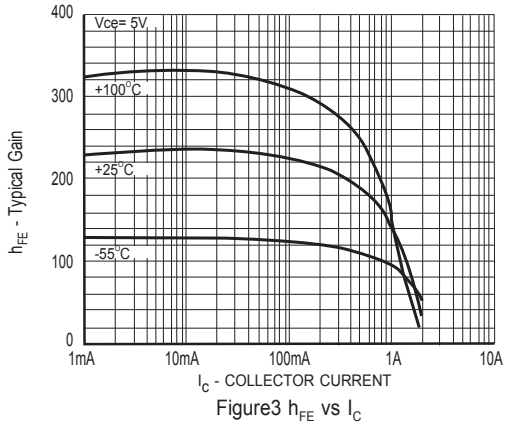
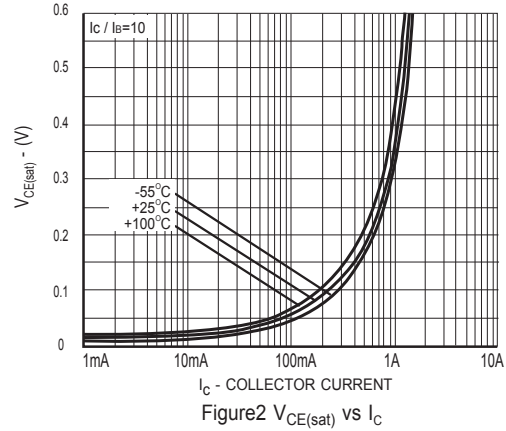
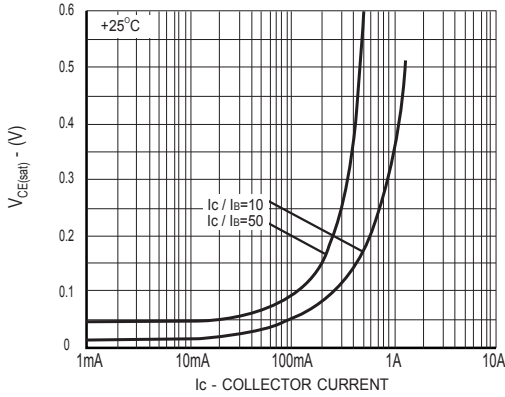


ELECTRICAL CHARACTERISTICS (@ T_A = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS
Collector-base breakdown voltage (I _C = 100μA, I _E =0)	V _{(BR)CBO}	80	-	-	V
Collector-emitter breakdown voltage (I _C = 10mA, I _B =0) (Note 1)	V _{(BR)CEO}	60	-	-	V
Emitter-base breakdown voltage (I _E = 100μA, I _C =0)	V _{(BR)EBO}	5	-	-	V
Collector cut-off current (V _{CB} = 60V, I _E =0)	I _{CBO}	-	-	0.1	mA
Emitter cut-off current (V _{EB} = 4V, I _C =0)	I _{EBO}	-	-	0.1	mA
DC current gain (V _{CE} = 5V, I _C = 1mA)	h _{FE(1)}	100	-	-	-
DC current gain (V _{CE} = 5V, I _C = 500mA) (Note 1)	h _{FE(2)}	100	-	300	-
DC current gain (V _{CE} = 5V, I _C = 1A) (Note 1)	h _{FE(3)}	80	-	-	-
DC current gain (V _{CE} = 5V, I _C = 2A) (Note 1)	h _{FE(4)}	30	-	-	-
Collector-emitter saturation voltage (I _C = 500mA, I _B = 50mA) (Note 1)	V _{CE(sat)1}	-	-	0.25	V
Collector-emitter saturation voltage (I _C = 1A, I _B = 100mA) (Note 1)	V _{CE(sat)2}	-	-	0.5	V
Base-emitter saturation voltage (I _C = 1A, I _B = 100mA) (Note 1)	V _{BE(sat)}	-	-	1.1	V
Base-emitter voltage (V _{CE} = 5V, I _C = 1A) (Note 1)	V _{BE}	-	-	1	V
Transition frequency (V _{CE} = 10V, I _C = 50mA, f=100MHz)	f _T	150	-	-	MHZ
Collector output capacitance (V _{CB} = 10V, f=1MHz)	C _{ob}	-	-	10	pF

Notes 1: Measured under pulsed conditions, Pulse width=300ms, Duty cycle.< 2%.
2: "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTICS CURVES (FMMT491)



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