

FEATURES

- | Low equivalent on-resistance

- | Power Dissipation of 1W

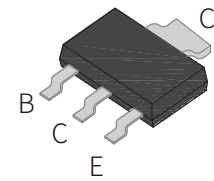
- | High Stability and High Reliability

MECHANICAL DATA

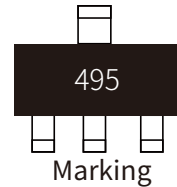
- | SOT-89 small outline plastic package

- | Epoxy UL: 94V-0

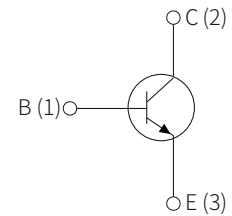
- | Mounting position: Any



SOT-89



Marking



Schematic Symbol

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	170	V
Collector-Emitter Voltage	V_{CEO}	150	
Emitter-Base Voltage	V_{EBO}	5	
Collector Current-Continuous	I_{C}	1.0	A
Collector Power Dissipation	P_{C}	1	W
Thermal Resistance From Junction To Ambient	$R_{\theta\text{JA}}$	125	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_{J}	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~+150	$^{\circ}\text{C}$

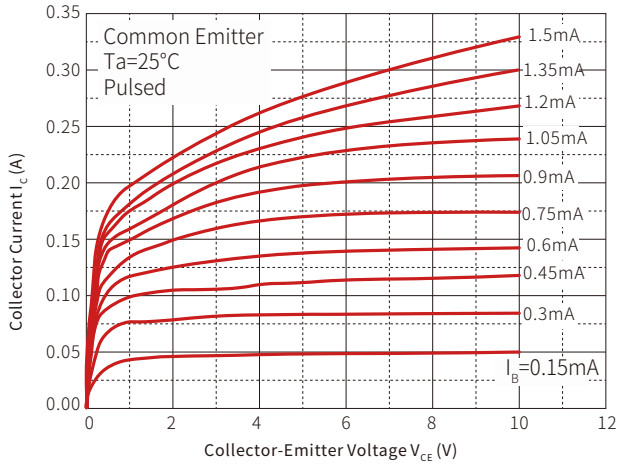
ELECTRICAL CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	170			V
Collector-emitter breakdown voltage	V _{(BR)CEO} *	I _C =10mA, I _B =0	150			
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	5			
Collector cut-off current	I _{CBO}	V _{CB} =150V, I _E =0			100	nA
Collector cut-off current	I _{CES}	V _{CES} =150V, I _E =0			100	
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0			100	
DC current gain	h _{FE(1)}	V _{CE} =10V, I _C =1mA	100			
	h _{FE(2)} *	V _{CE} =10V, I _C =250mA	100		300	
	h _{FE(3)} *	V _{CE} =10V, I _C =500mA	50			
	h _{FE(4)} *	V _{CE} =10V, I _C =1000mA	10			
Collector-emitter saturation voltage	V _{CE(sat)} *	I _C =250mA, I _B =25mA			0.20	V
		I _C =500mA, I _B =50mA			0.30	
Base-emitter saturation voltage	V _{BE(sat)} *	I _C =500mA, I _B =50mA			1.00	
Base-emitter voltage	V _{BE} *	V _{CE} =10V, I _C =500mA			1.00	
Transition frequency	f _T	V _{CE} =10V, I _C =50mA, f=100MHz	100			MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			10	pF

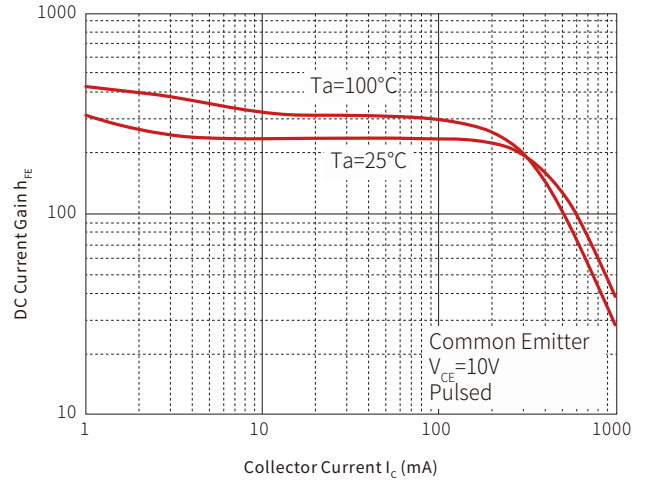
* Measured under pulsed conditions, Pulse width=300us, Duty cycle≤2%

TYPICAL CHARACTERISTICS

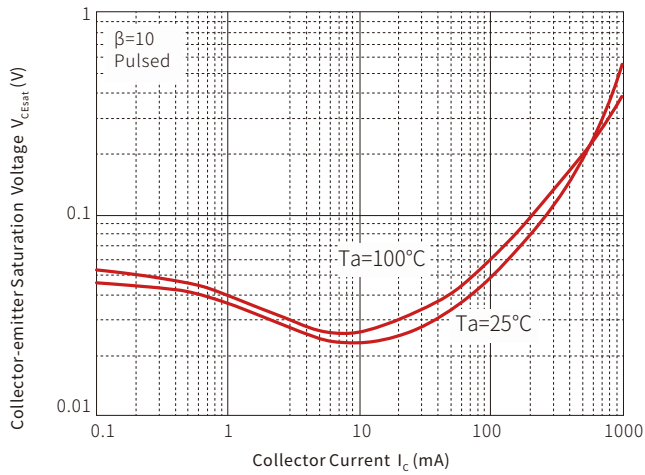
Static Characteristic



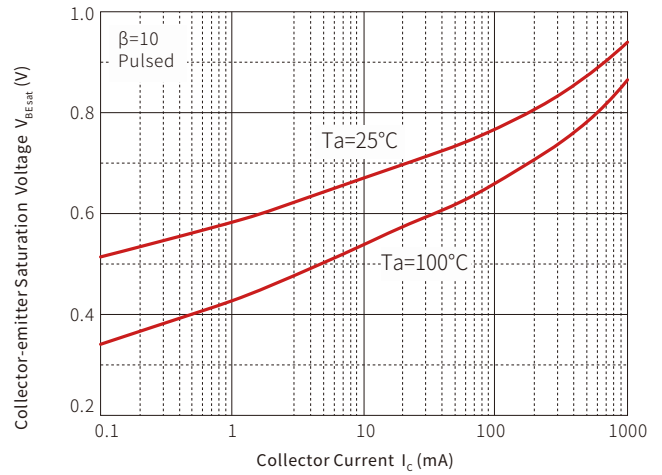
h_{FE} — I_C

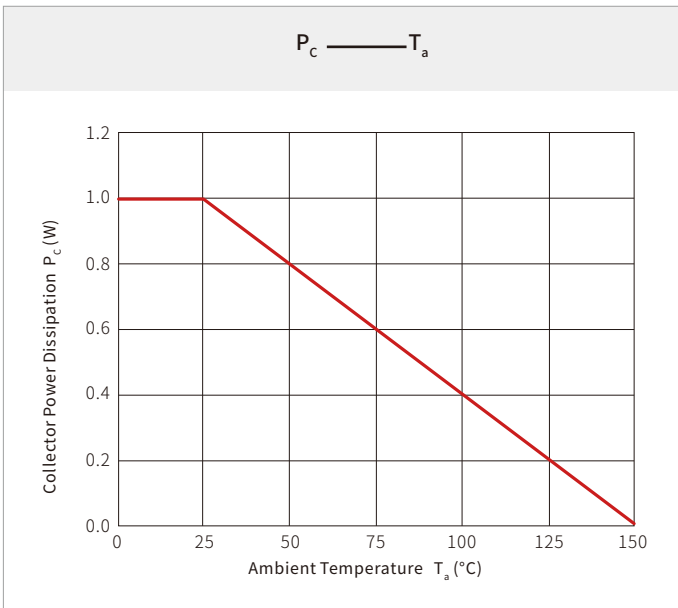
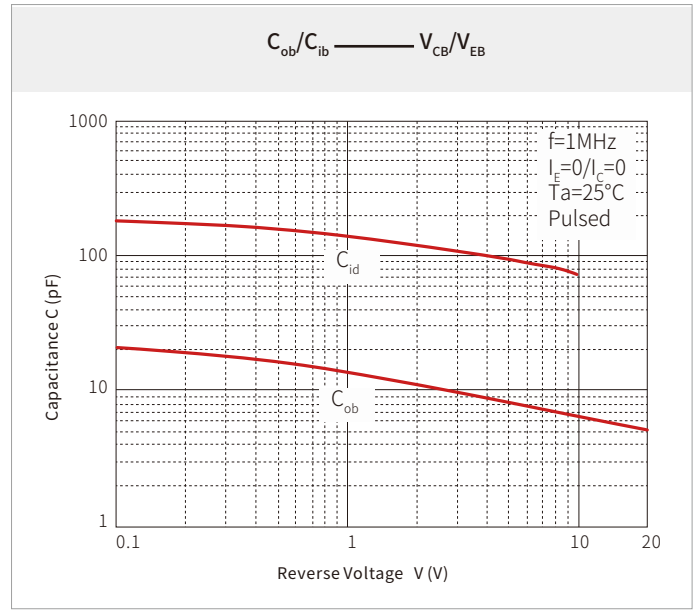
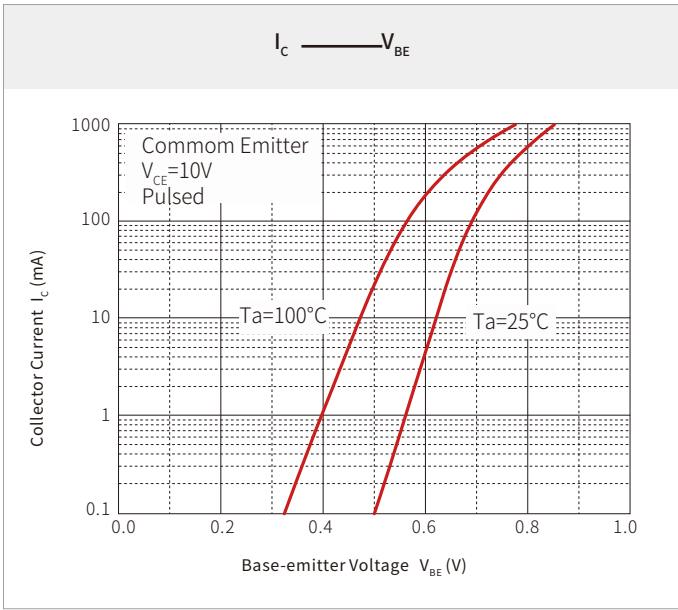


V_{CEsat} — I_C

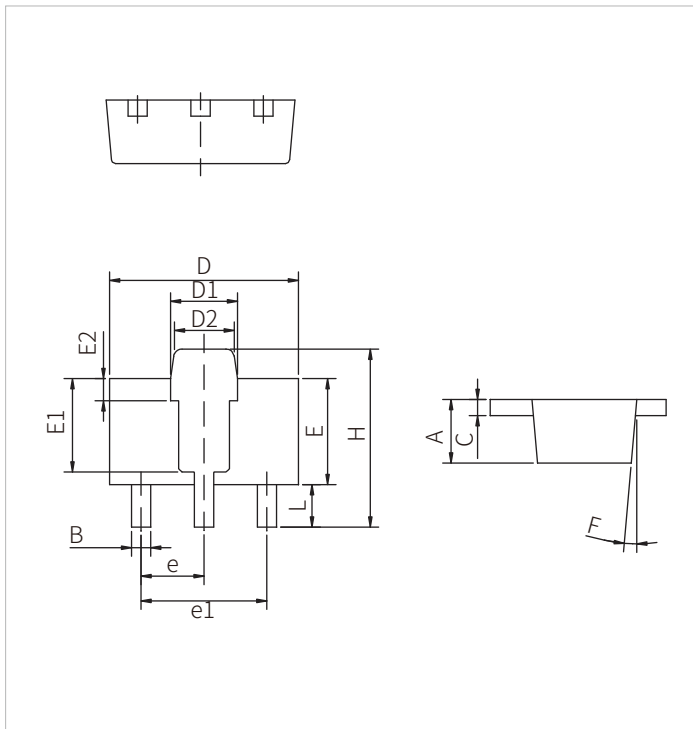


V_{BEsat} — I_C





SOT-89 PACKAGE DIMENSIONS



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	1.40		1.60	0.055		0.063
B	0.40		0.52	0.016		0.020
C	0.35		0.41	0.014		0.016
D	4.40		4.60	0.173		0.181
D1	1.50		1.70	0.059		0.067
D2	1.30		1.50	0.051		0.059
E	2.40		2.60	0.094		0.102
E1		2.20			0.087	
E2		0.52			0.020	
e		1.50			0.059	
e1		3.00			0.118	
F		5.00			5.000	
H	4.05		4.25	0.159		0.167
L	0.89		1.20	0.035		0.047

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size	Box	Carton
FMMT495	SOT-89	1000PCS	7"	6000PCS	30000PCS

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By QR Code

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Wechat

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