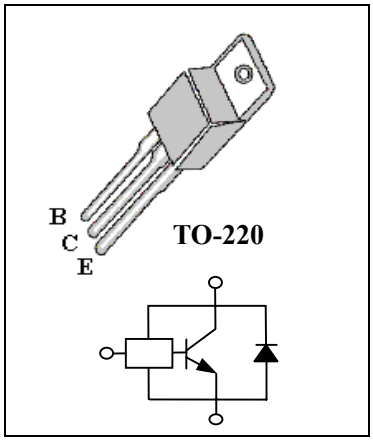
BLD SERIES TRANSISTORS BLD139D

● **FEATURES:** ■HIGH VOLTAGE CAPABILITY ■HIGH SPEED SWITCHING ■WIDE SOA

● **APPLICATION:** ■FLUORESCENT LAMP ■ELECTRONIC BALLAST ■ELECTRONIC TRANSFORMER ■SWITCH MODE POWER SUPPLY

● **Absolute Maximum Ratings（Tc=25°C）** **TO-220**

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	700	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter- Base Voltage	V_{EBO}	9	V
Collector Current	I_C	12	A
Total Power Dissipation	P_C	100	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-65-150	°C



● **Electronic Characteristics（Tc=25°C）**

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector-Base Cutoff Current	I_{CBO}	V_{CB}=700V		100	μA
Collector-Emitter Cutoff Current	I_{CEO}	V_{CE}=400V,I_B=0		250	μA
Collector-Emitter Voltage	V_{CEO}	I_C=10mA,I_B=0	400		V
Emitter -Base Voltage	V_{EBO}	I_E=1mA,I_C=0	9		V
Collector-Emitter Saturation Voltage	Vces	I_C=5.0A,I_B=1.0A		1.0	V
		I_C=8.0A,I_B=1.6A		1.5	
		I_C=12.0A,I_B=3.0A		3.0	
Base-Emitter Saturation Voltage	Vbes	I_C=5.0A,I_B=1.0A		1.5	V
DC Current Gain	h_{FE}	V_{CE}=5V,I_C=10mA	10		
		V_{CE}=5V,I_C=5.0A	15	80	
Storage Time	ts	V_{CC}=5V,I_C=0.5A (UI9600 test)		10	us
Falling Time	tf			0.8	

Integrated diode characteristics

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Diode Forward Voltage	Vf	I_C=3.0A		2.5	V

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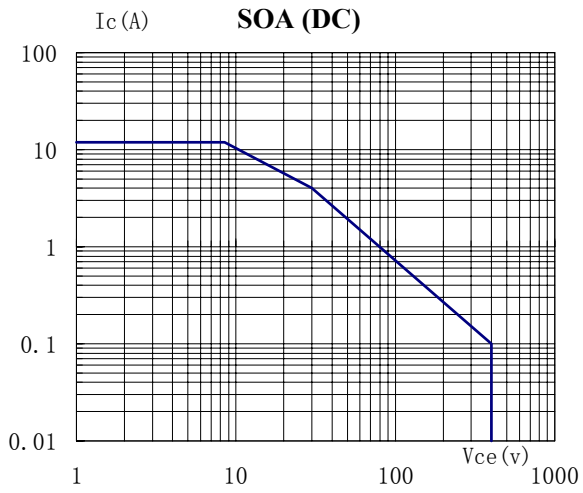

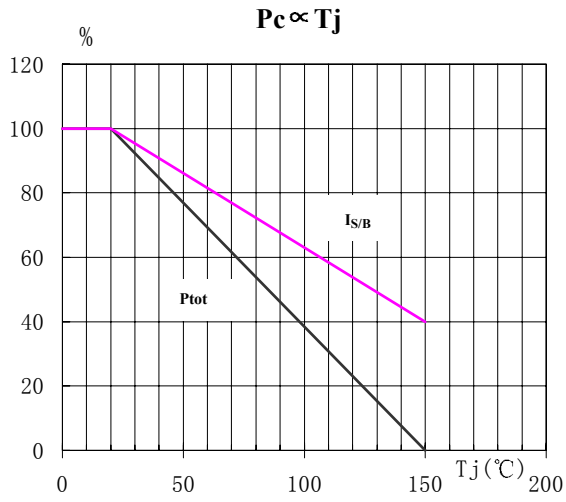

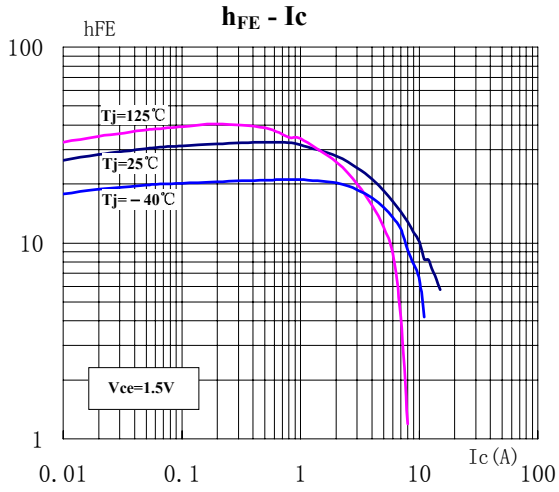

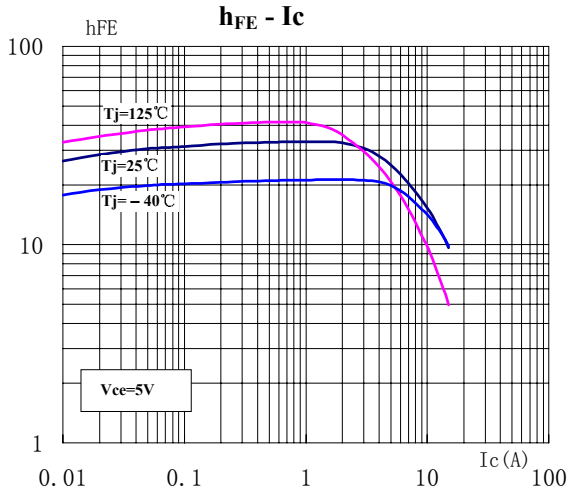

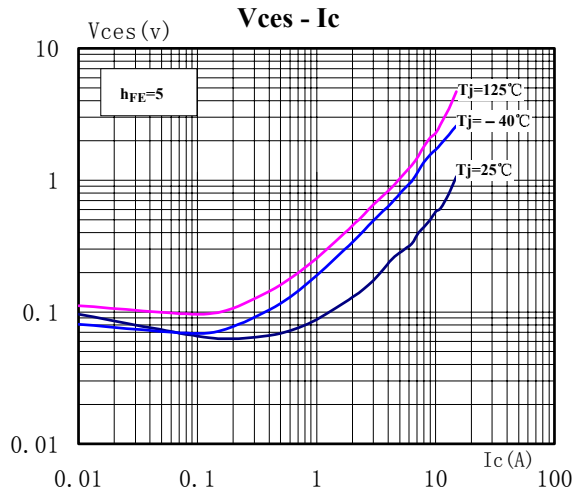

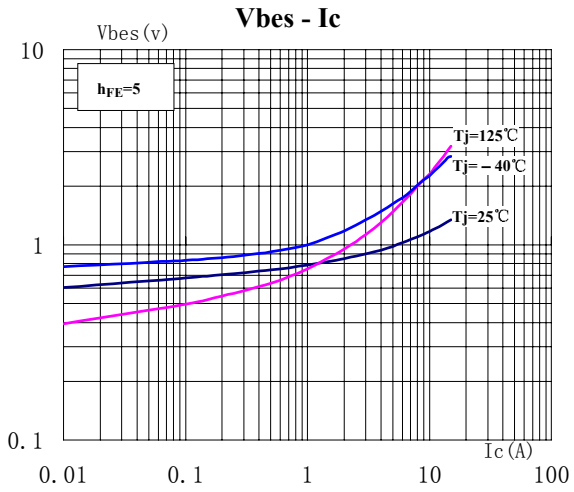

TO-220 MECHANICAL DATA

UNIT：mm

SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	3.5		4.8	e		2.54	
B			2.4	F	1.1		1.4
B1			1.8	L	12.5		14.5
b	0.6			L1			3.5
ϕb1			1.2	L2			6.3
c	0.4			ϕP			
D			16.5	Q	2.5		3.1
D1	5.9		6.9	Q1	2.0		2.8
E			10.7	Z	3.0