

QM10HB-2H

DRIVE USE FOR HIGH POWER TRANSISTOR
INSULATED TYPE

QM10HB-2H



- **I_C** Collector current **10A**
- **V_{CEX}** Collector-emitter voltage **1000V**
- **h_{FE}** DC current gain **5**
- **Insulated Type**
- **UL Recognized**

Yellow Card No. E80276 (N)

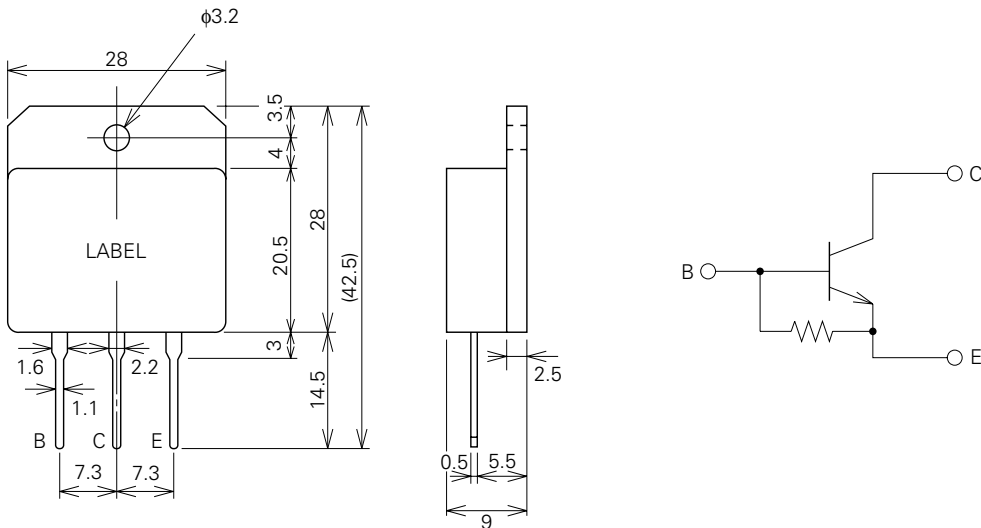
File No. E80271

APPLICATION

Base driver for High voltage transistor modules

OUTLINE DRAWING & CIRCUIT DIAGRAM

Dimensions in mm



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ABSOLUTE MAXIMUM RATINGS (Tj=25°C, unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
VCEX (SUS)	Collector-emitter voltage	IC=1A, VEB=2V	1000	V
VCEX	Collector-emitter voltage	VEB=2V	1000	V
VCBO	Collector-base voltage	Emitter open	1000	V
VEBO	Emitter-base voltage	Collector open	7	V
IC	Collector current	DC	10	A
PC	Collector dissipation	Tc=25°C	100	W
IB	Base current	DC	2	A
Tj	Junction temperature		-40~+150	°C
Tstg	Storage temperature		-40~+125	°C
Viso	Isolation voltage	Charged part to case, AC for 1 minute	2500	V
—	Mounting torque	Mounting screw M3	0.59~0.98	N·m
—			6~10	kg·cm
—	Weight	Typical value	40	g

ELECTRICAL CHARACTERISTICS (Tj=25°C, unless otherwise noted)

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
ICEX	Collector cutoff current	VCE=1000V, VEB=2V	—	—	1.0	mA
ICBO	Collector cutoff current	VCB=1000V, Emitter open	—	—	1.0	mA
IEBO	Emitter cutoff current	VEB=7V	—	—	150	mA
VCE (sat)	Collector-emitter saturation voltage	IC=5A, IB=1A	—	—	1.0	V
VBE (sat)	Base-emitter saturation voltage		—	—	1.5	V
hFE	DC current gain	IC=5A, VCE=1V	5	—	—	—
ton	Switching time	VCC=600V, IC=5A, IB1=-IB2=1A	—	—	1.5	μs
ts			—	—	7.0	μs
tf			—	—	2.0	μs
Rth (j-c) Q	Thermal resistance (junction to case)	Transistor part	—	—	1.2	°C/W
Rth (c-f)	Contact thermal resistance (case to fin)	Conductive grease applied	—	—	0.4	°C/W

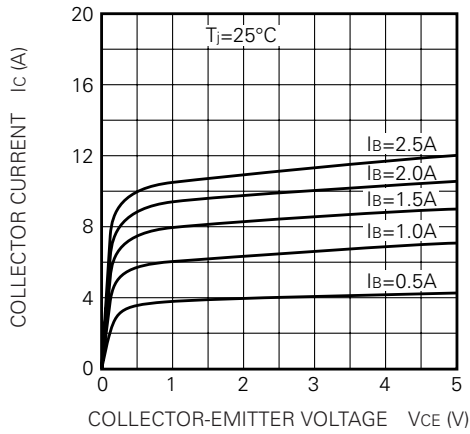
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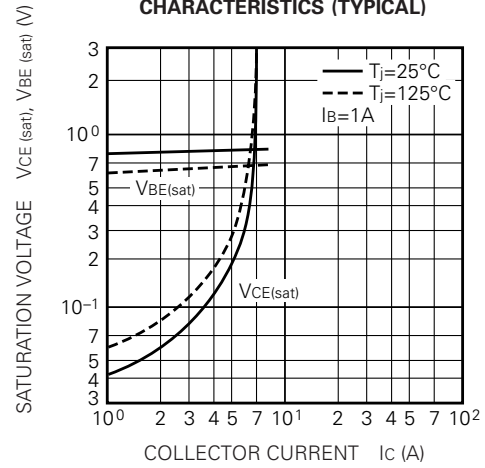
INSULATED TYPE

PERFORMANCE CURVES

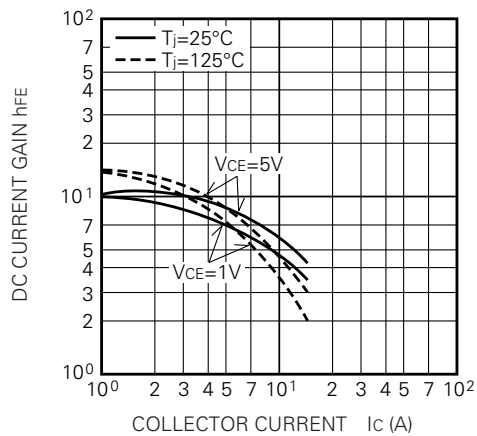
COMMON EMITTER OUTPUT CHARACTERISTICS (TYPICAL)



SATURATION VOLTAGE CHARACTERISTICS (TYPICAL)



DC CURRENT GAIN VS. COLLECTOR CURRENT (TYPICAL)



SWITCHING TIME VS. COLLECTOR CURRENT (TYPICAL)

