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Tr

ROHM SEMICONDUCTOR

Low $V_{CE(sat)}$ contributes to lower power consumption

Bipolar Transistors Ideal for Gate Drive Circuits (for SiC/IGBTs/Super Junction MOSFETs)

2SARxxx(PNP)/2SCRxxx(NPN)

Low saturation voltage $V_{CE(sat)}$ series

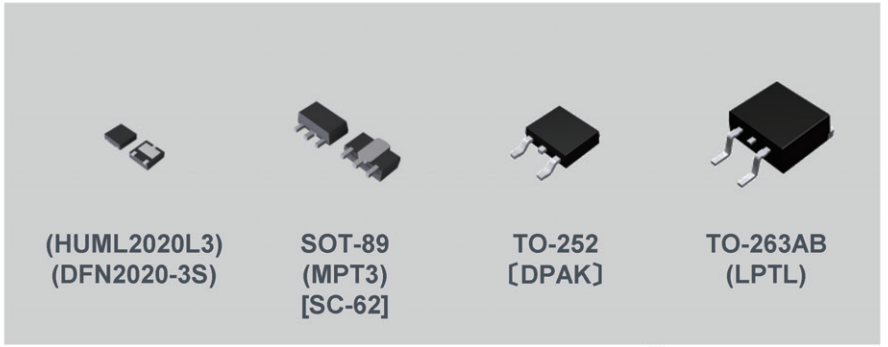
Large collector current

Broad package lineup

DFN2020-3S, SOT-89, TO-252, TO-263AB

Automotive-grade(AEC-Q101 qualified)*

*SOT-89, TO-252, TO-263AB



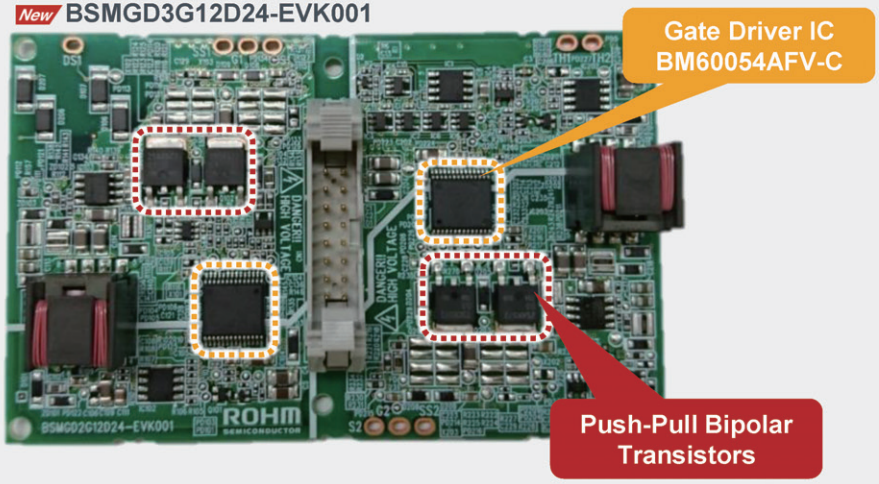
(HUML2020L3) (DFN2020-3S) | SOT-89 (MPT3) [SC-62] | TO-252 〔DPAK〕 | TO-263AB (LPTL)

Note: Package indicates JEDEC code; ( ): ROHM package; [ ] JEITA code; 〔 〕: General code

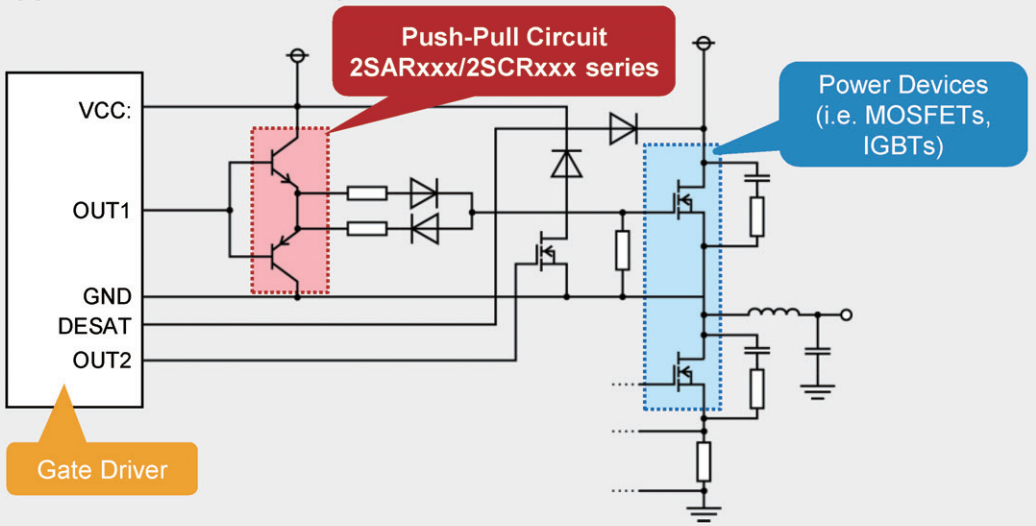
■ Optimized for Gate Drive Circuits

・Gate Drive Board for Evaluating Full SiC Modules

New BSMGD2G12D24-EVK001
New BSMGD3G12D24-EVK001



・Application Circuit Example



■ Bipolar Transistors for Gate Drive Circuits (ROHM offers a broad lineup of bipolar transistors in addition to the models below)

Package	P_D (W)	Polarity	Part No.		V_{CEO} (V)	I_C (A)	I_{CP} *4 (A)	h_{FE}	$V_{CE(sat)}$ Typ(mV) I_C=0.5A/I_B=0.05A
			Consumer	Automotive (AEC-Q101)					
(HUML2020L3) 〔DFN2020-3S〕 2.0×2.0×0.6mm	2.1*1	PNP	New 2SAR563F3	—	- 50	- 6	-12	180 to 450	- 50
			New 2SAR564F3	—	- 80	- 4	- 8	120 to 390	- 60
		NPN	New 2SCR563F3	—	50	6	12	180 to 450	35
			New 2SCR564F3	—	80	4	8	120 to 390	40
SOT-89 (MPT3) [SC-62] 4.5×4.0×1.5mm	2*2	PNP	2SAR533P5	2SAR533P HZG	- 50	- 3	- 6	180 to 450	-120
			2SAR544P5	2SAR544P HZG	- 80	-2.5	- 5	120 to 390	- 90
		NPN	2SCR533P5	2SCR533P HZG	50	3	6	180 to 450	60
			2SCR544P5	2SCR544P HZG	80	2.5	5	120 to 390	50
TO-252 〔DPAK〕 6.6×10.0×2.2mm	10*3	PNP	2SAR583D3	☆2SAR583D3 FRA	- 50	- 7	-14	180 to 450	- 40
			2SAR586D3	2SAR586D3 FRA	- 80	- 5	-10	120 to 390	- 40
		NPN	2SCR583D3	☆2SCR583D3 FRA	50	7	14	180 to 450	30
			2SCR586D3	2SCR586D3 FRA	80	5	10	120 to 390	30
TO-263AB (LPTL) 10.1×15.1×4.5mm	40*3	PNP	2SAR586J	2SAR586J FRG	- 80	- 5	-10	120 to 390	- 40
		NPN	2SCR586J	2SCR586J FRG	80	5	10	120 to 390	30

Note: Package indicates JEDEC code; ( ): ROHM package; [ ] JEITA code; 〔 〕: General code ☆: Under Development

*1 Pw=10ms when mounted on an FR4 board (25.4x25.4x1.6mm, 645mm2 Cu pad); *2 When mounted on a 40x40x0.7mm ceramic board; *3 Tc=25C; *4 Pw=10ms, single pulse

■ Applications Examples

- xEVs
- Charging stands
- Data centers, servers, UPS
- Solar power panels
- FA, drivers, power supplies ...and more

Supports a broad range of applications

■ Related Pages

SiC Support Page
https://www.rohm.com/power-device-support

For information on other products, please visit ROHM's website.

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The content specified in this document is correct as of August 1st, 2020.

