

/ Descriptions

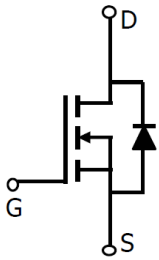
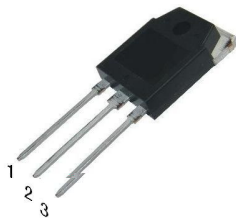
N TO-3PH

N-Channel MOSFET in a TO-3PH Plastic Package.

/ Features $R_{DS(ON)}$ Q_g Fast Intrinsic Rectifier, Low $R_{DS(ON)}$ and Q_g , Low Package Inductance**/ Applications**

DC-DC

Switch-Mode and Resonant-Mode Power Supplies, DC-DC Converters, Laser Drivers, AC and DC Motor Drives, Robotics and Servo Controls.

/ Equivalent Circuit**/ Pinning**

PIN1 Gate PIN 2 Drain PIN 3 Source

/ h_{FE} Classifications & Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Drain Source Voltage	V_{DSS}	500	V
Gate-Source Voltage	V_{GSS}	±30	V
Drain Continuous- Current(Note 1)	$I_D(T_C=25^{\circ}\text{C})$	26	A
Drain Current Pulsed(Note 2)	I_{DM}	104	A
Avalanche Current(Note 2)	I_{AS}	19	A
Single Pulse Avalanche Energy L=0.5mH	E_{AS}	1600	mJ
Peak Diode Recovery dv/dt	dv/dt	15	V/ns
Power Dissipation	$P_D(T_C=25^{\circ}\text{C})$ Derate above 25°C	290	W
		2.33	W/°C
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-55~+150	

1.

2.

Note:

1. Drain current limited by maximum junction temperature.
2. Repetitive Rating: Pulse width limited by maximum junction temperature.

/ Thermal Data

Parameter	Symbol	Rating	Unit
Junction to Ambient	$R_{\theta JA}$	40	°C/W
Junction to Case	$R_{\theta JC}$	0.45	°C/W

BRCS26N50PH

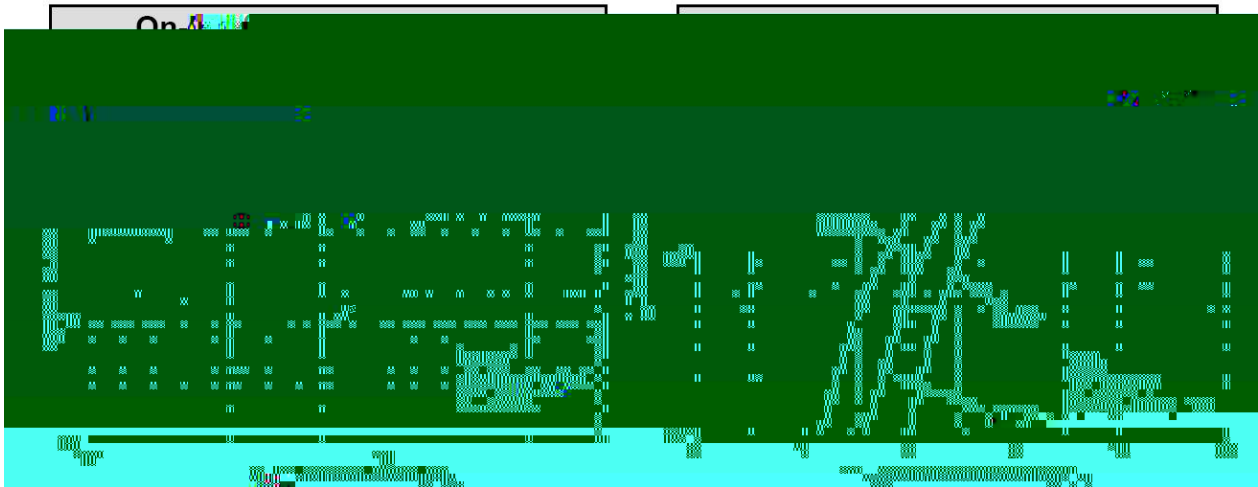
Rev.A Jul.-2019



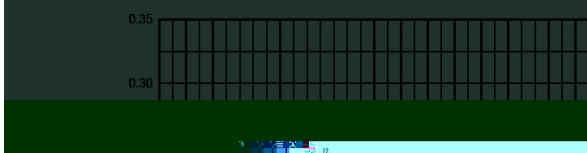
DATA SHEET

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$	$I_D=250\mu A$	500			V
Drain-Source Leakage Current	I_{DSS}	$V_{DS}=500V$	$V_{GS}=0V$			1	

/ Electrical Characteristic Curve



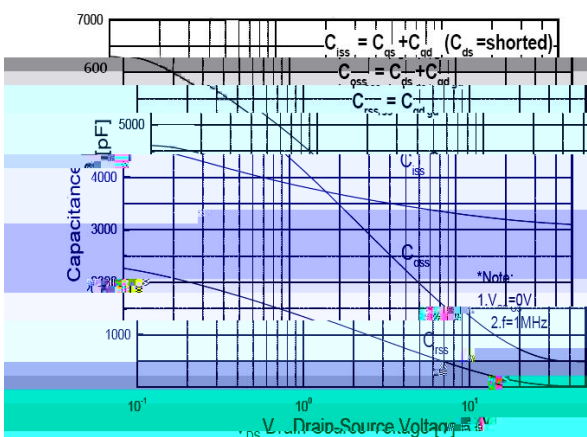
On-Resistance Variation vs Drain Current and Gate Voltage



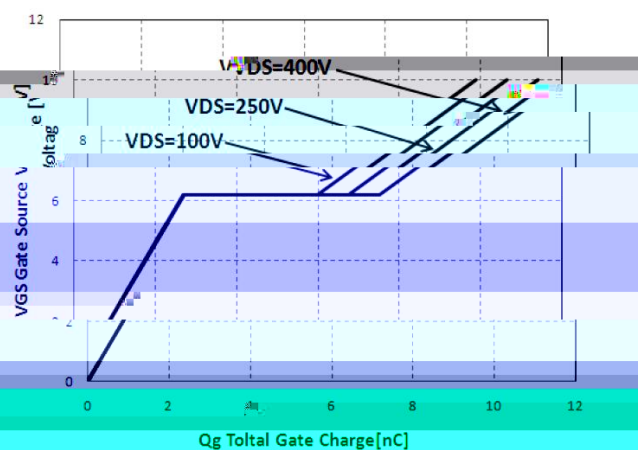
Body Diode Forward Voltage Variation vs. Source Current and Temperature



Capacitance Characteristics

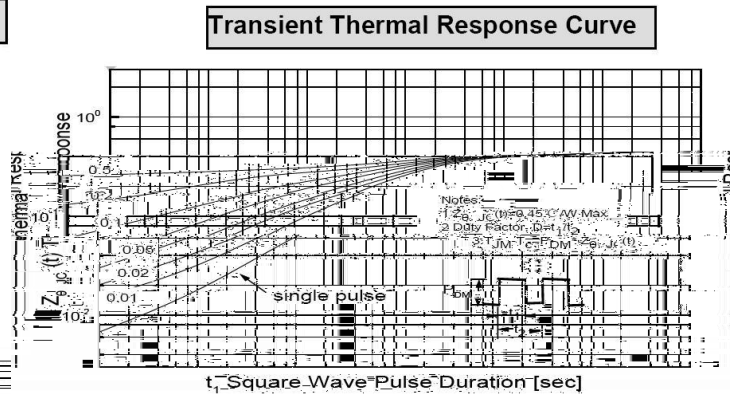
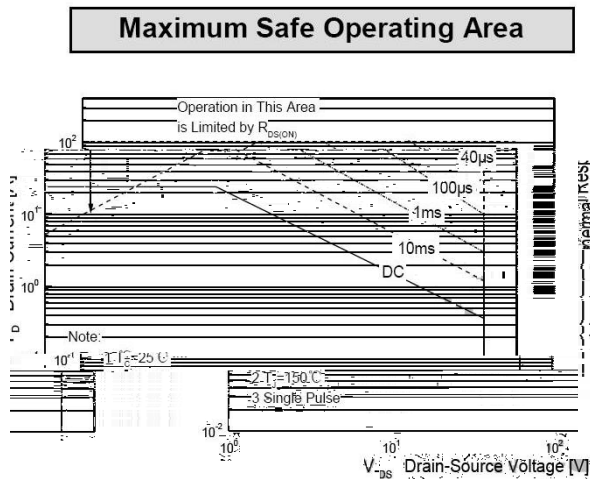
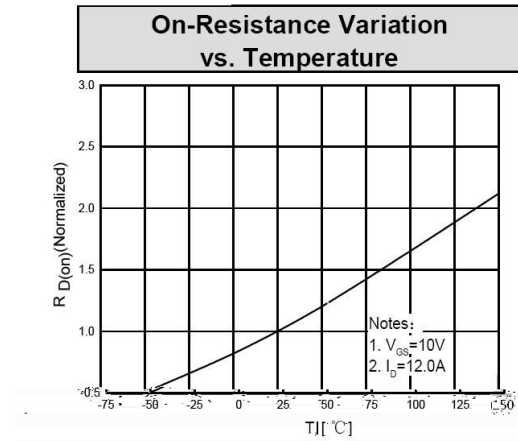
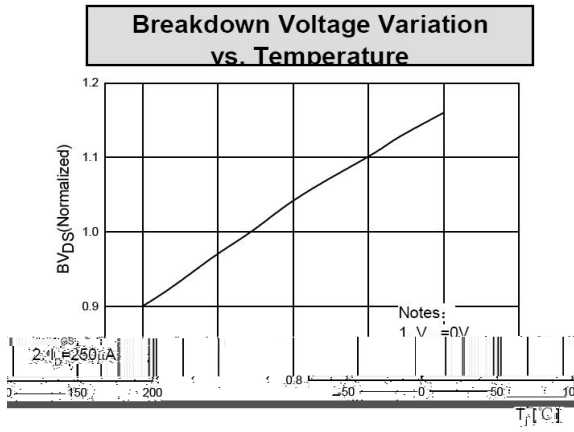


Capacitance Characteristics





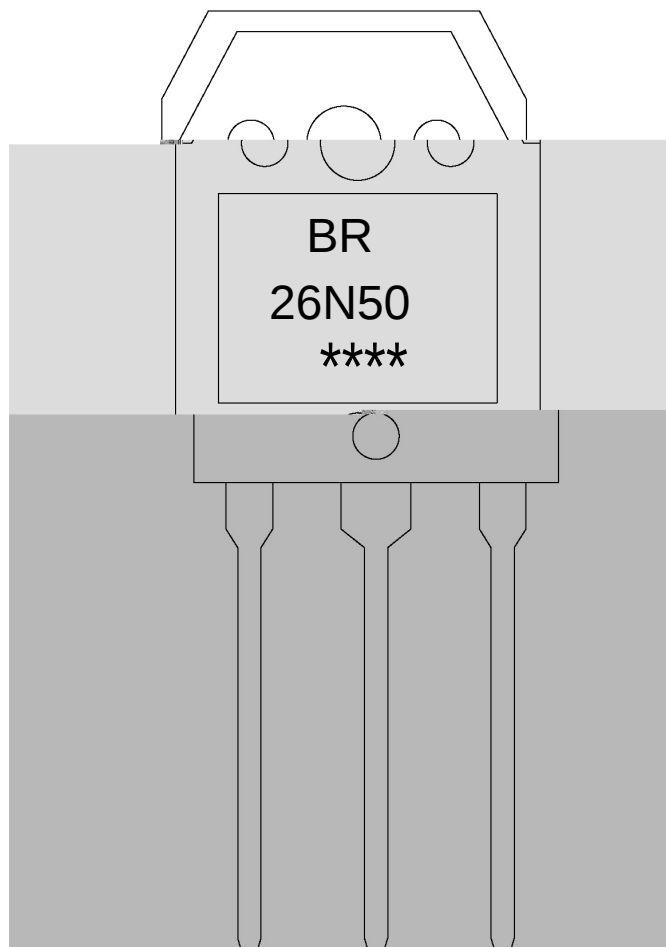
/ Electrical Characteristics(Ta=25)



BRCS26N50PH

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/ Marking Instructions



BR:

26N50

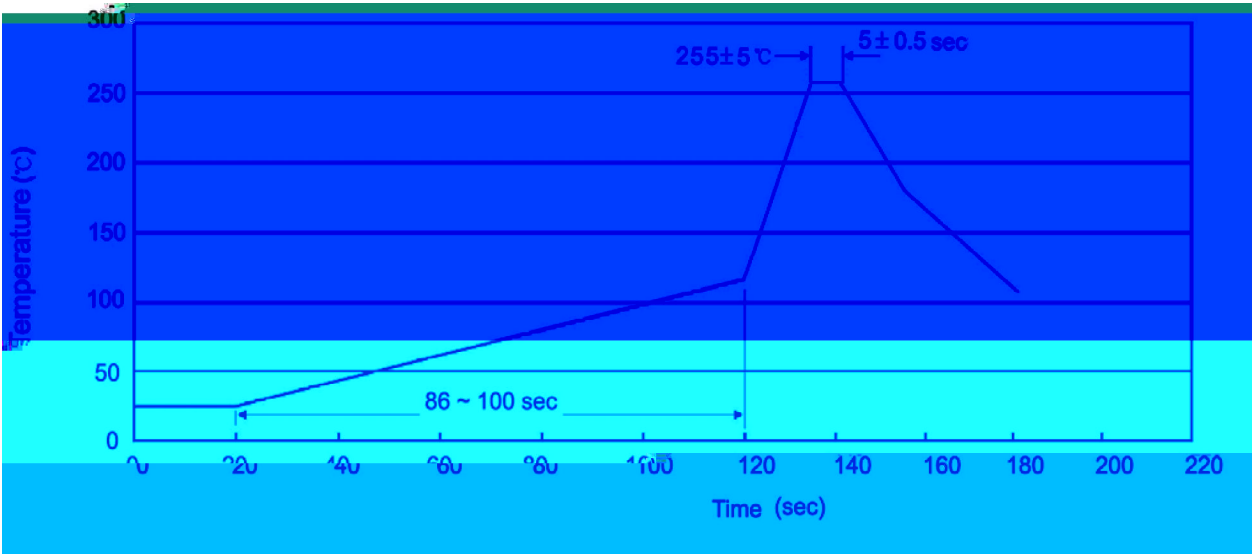
Note:

BR: Company Code.

26N50: Product Type.

****: Lot No. Code, code change with Lot No.

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

- 1

25 150

60 90sec;
- 2

255±5

5±0.5sec;
- 3

2 10 /sec.
- 1.Preheating:25~150 , Time:60~90sec.
- 2.Peak Temp.:255±5 , Duration:5±0.5sec.
3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

270±5 10±1 sec. Temp:270±5℃ Time:10±1 sec

/ Packaging SPEC.

/ TUBE

Package Type	Units					Dimension (unit: mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-3PH	30	15	450	5	2250	497.5×46×8	555×164×50	575×290×180

/ Notices