CPH3355

Power MOSFET -30V, 156mΩ, -2.5A, Single P-Channel



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Features

- On-resistance Rps(on)1=120m Ω (typ)
- 4V drive
- Halogen free compliance

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Value	Unit
Drain to Source Voltage	VDSS	-30	V
Gate to Source Voltage	VGSS	±20	V
Drain Current (DC)	ID	-2.5	Α
Drain Current (Pulse) PW≤10μs, duty cycle≤1%	I _{DP}	-10	А
Power Dissipation When mounted on ceramic substrate (900mm²×0.8mm)	PD	1.0	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55 to +150	°C

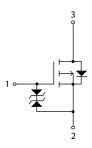
This product is designed to "ESD immunity < 200V*", so please take care when handling.

Thermal Resistance Ratings

Parameter	Symbol	Value	Unit
Junction to Ambient When mounted on ceramic substrate (900mm ² ×0.8mm)	R _{θJA}	125	°C/W

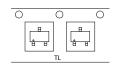
Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

Electrical Connection P-Channel



Packing Type:TL

Marking





ORDERING INFORMATION

See detailed ordering and shipping information on page 5 of this data sheet.

^{*} Machine Model

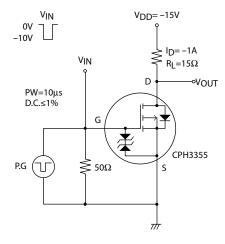
CPH3355

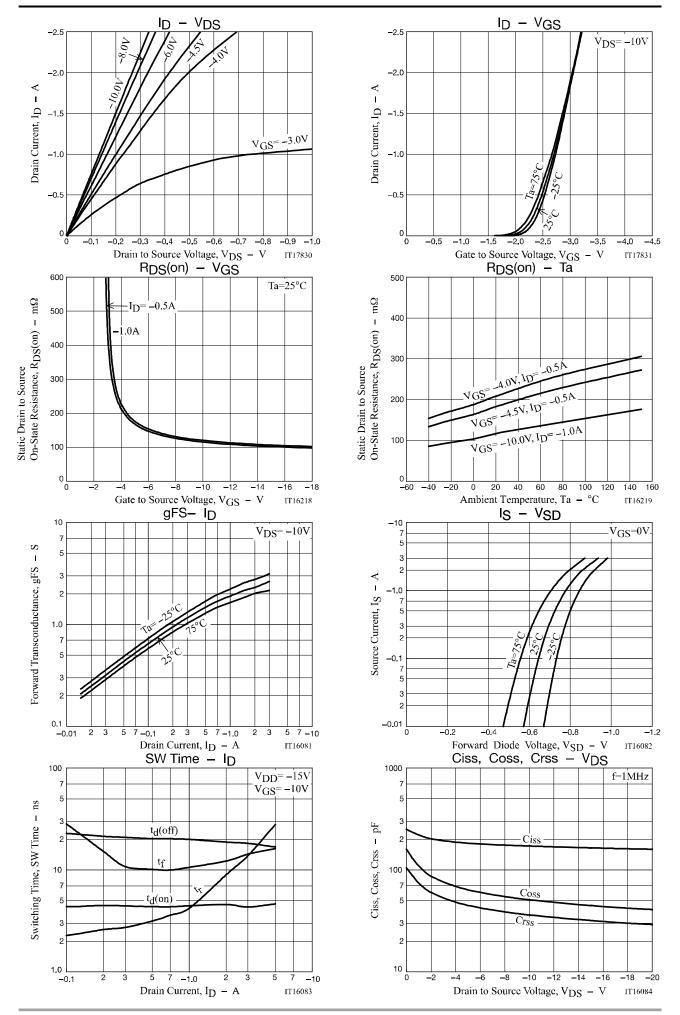
Electrical Characteristics at $Ta = 25^{\circ}C$

Parameter	O. wash as	Conditions	Value			11-24
Parameter	Symbol		min	typ	max	Unit
Drain to Source Breakdown Voltage	V(BR)DSS	I _D =-1mA, V _{GS} =0V	-30			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =-30V, V _{GS} =0V			-1	μΑ
Gate to Source Leakage Current	IGSS	V _{GS} =±16V, V _{DS} =0V			±10	μΑ
Gate Threshold Voltage	V _{GS} (th)	V _{DS} =-10V, I _D =-1mA	-1.2		-2.6	V
Forward Transconductance	gFS	V _{DS} =-10V, I _D =-1A		1.9		S
Static Drain to Source On-State Resistance	R _{DS} (on)1	I _D =-1A, V _G S=-10V		120	156	mΩ
	R _{DS} (on)2	I _D =-0.5A, V _G S=-4.5V		187	262	mΩ
	R _{DS} (on)3	I _D =-0.5A, V _G S=-4V		213	299	mΩ
Input Capacitance	Ciss			172		pF
Output Capacitance	Coss	V _{DS} =-10V, f=1MHz		51		pF
Reverse Transfer Capacitance	Crss			36		pF
Turn-ON Delay Time	t _d (on)			4.5		ns
Rise Time	t _r	0		4.2		ns
Turn-OFF Delay Time	t _d (off)	See specified Test Circuit		20		ns
Fall Time	tf	1		10.6		ns
Total Gate Charge	Qg	V _{DS} =-15V, V _{GS} =-10V, I _D =-2.5A		3.9		nC
Gate to Source Charge	Qgs			0.6		nC
Gate to Drain "Miller" Charge	Qgd]		8.0		nC
Forward Diode Voltage	V _{SD}	I _S =-2.5A, V _G S=0V		-0.86	-1.5	V

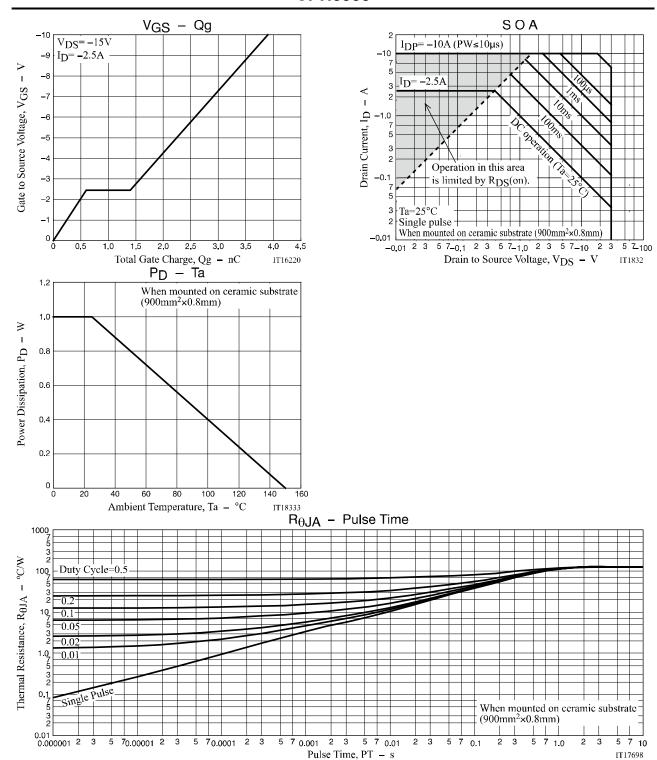
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

Switching Time Test Circuit





CPH3355



Package Dimensions

CPH3355-TL-H/ CPH3355-TL-W

CPH3

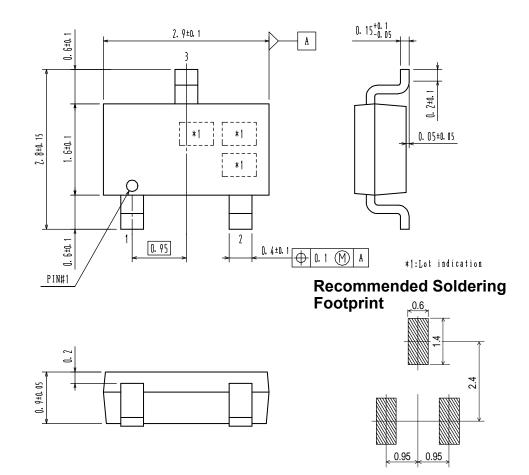
CASE 318BA ISSUE O

Unit: mm

1: Gate

2: Source

3: Drain



ORDERING INFORMATION

Device	Package	Shipping	Note
CPH3355-TL-H	CPH3, SC-59	3,000	Pb-Free
CPH3355-TL-W	SOT-23, TO-236	pcs. / reel	and Halogen Free

Note on usage : Since the CPH3355 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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