



DUAL P-CHANNEL ENHANCEMENT MODE MOSFET

This device contains two electrically-isolated P-channel, enhancement-mode MOSFETs, housed in a very small SOT-363 (SC70-6L) package. This device is ideal for portable applications where board space is at a premium.

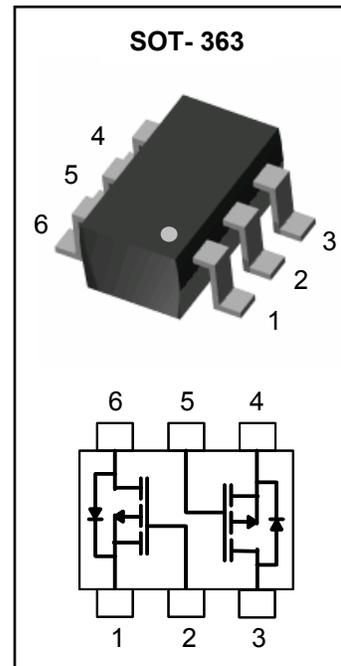
FEATURES

- Low On-Resistance
- Low Gate Threshold Voltage
- Fast Switching
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

APPLICATIONS

- Switching Power Supplies
- Hand-Held Computers, PDAs

MARKING CODE: S84



MAXIMUM RATINGS

$T_J = 25^{\circ}\text{C}$ Unless otherwise noted

Rating	Symbol	Value	Units
Drain-Source Voltage	V_{DSS}	- 50	V
Drain-Gate Voltage (Note 1)	V_{DGR}	- 50	V
Gate-Source Voltage	V_{GSS}	± 20	V
Drain Current	I_D	130	mA
Total Power Dissipation (Note 2)	P_D	200	mW
Operating Junction Temperature Range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^{\circ}\text{C}$

Note 1. $R_{GS} < 20\text{K ohms}$

THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Units
Thermal Resistance, Junction to Ambient (Note 2)	R_{thja}	625	$^{\circ}\text{C/W}$

Note 2. FR-4 board 70 x 60 x 1mm with minimum recommended pad layout



Electrical Characteristics (Each Device)

T_J = 25°C Unless otherwise noted

OFF CHARACTERISTICS (Note 3)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Drain-Source Breakdown Voltage	BV _{DSS}	I _D = -250μA, V _{GS} = 0V	-50	-	-	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = -50V, V _{GS} = 0V, T _J = 25°C	-	-	-15	μA
		V _{DS} = -50V, V _{GS} = 0V, T _J = 125°C	-	-	-60	
		V _{DS} = -25V, V _{GS} = 0V, T _J = 25°C	-	-	-0.1	
Gate-Body Leakage	I _{GSS}	V _{GS} = ±20V, V _{DS} = 0V	-	-	±10	nA

ON CHARACTERISTICS (Note 3)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = -1mA	-0.8	-1.44	-2.0	V
Static Drain-Source On-Resistance	R _{DS(ON)}	V _{GS} = -5V, I _D = -0.1A	-	3.8	10	Ohms
Forward Transconductance	g _{FS}	V _{DS} = -25V, I _D = -0.1A	0.05	-	-	S

DYNAMIC CHARACTERISTICS

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Input Capacitance	C _{iss}	V _{DS} = -25V, V _{GS} = 0V, f = 1.0MHz	-	-	45	pF
Output Capacitance	C _{oss}		-	-	25	pF
Reverse Transfer Capacitance	C _{rss}		-	-	12	pF

SWITCHING CHARACTERISTICS

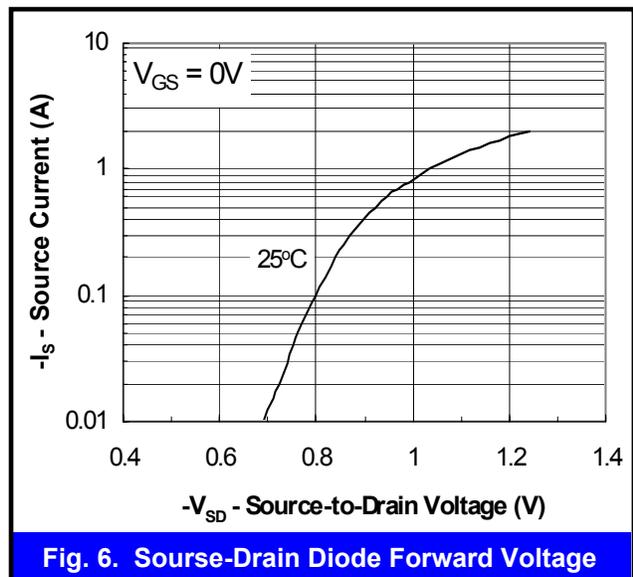
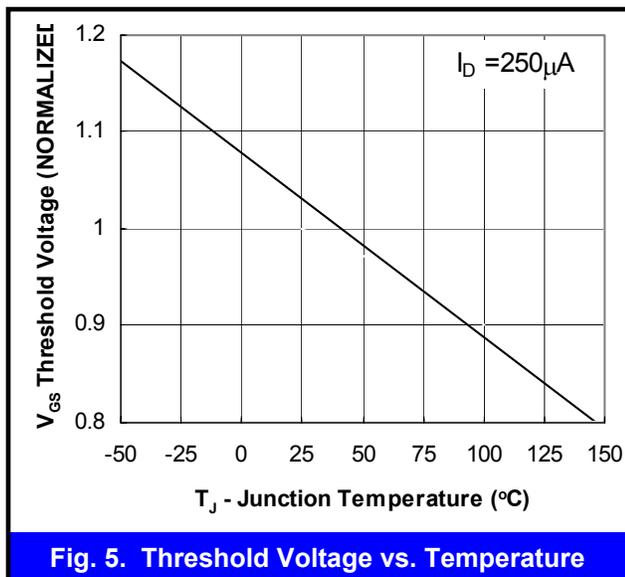
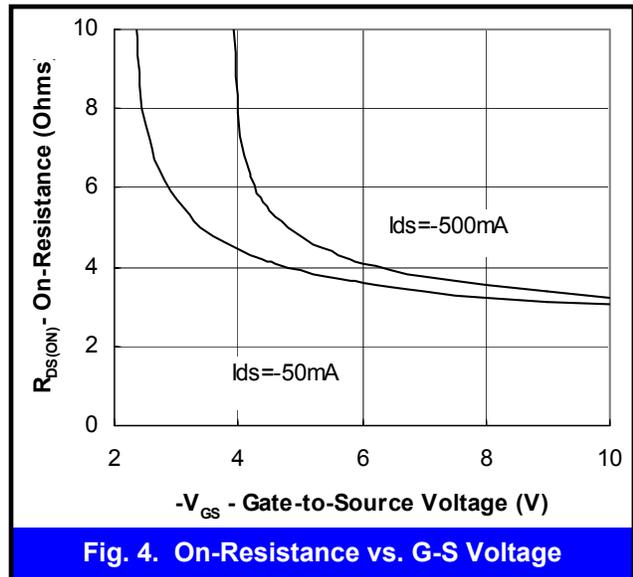
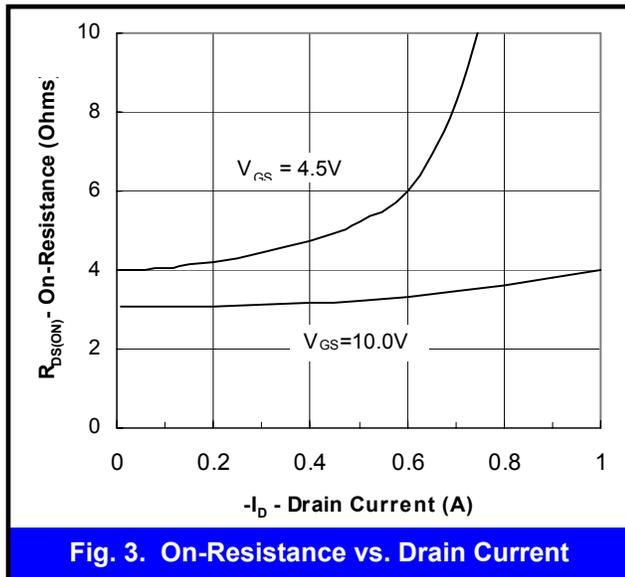
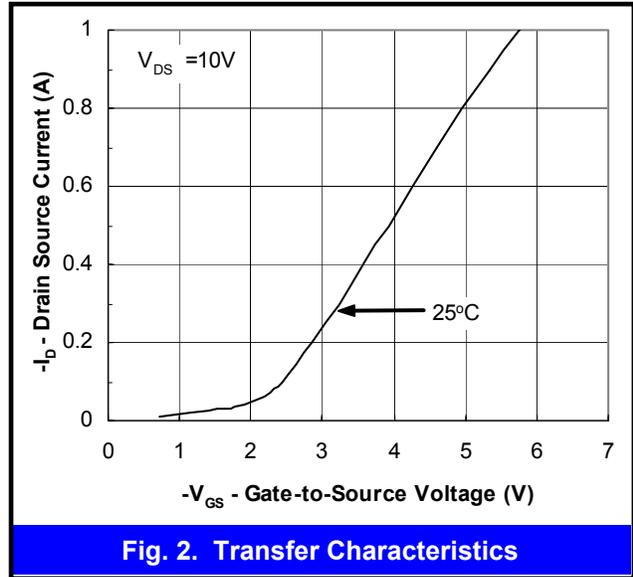
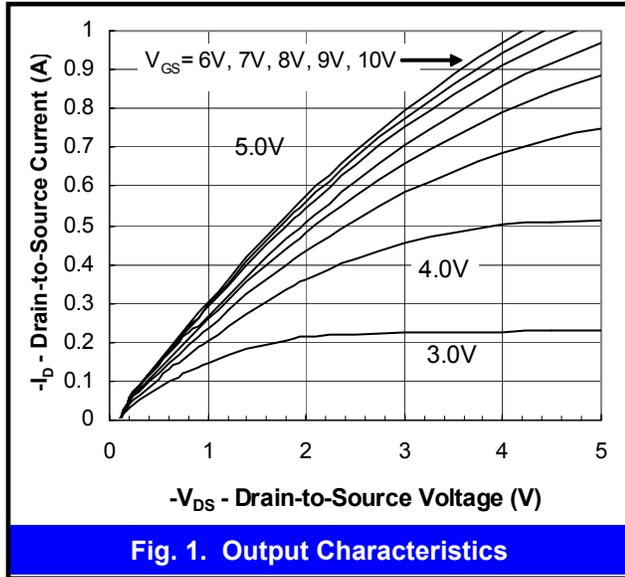
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Turn-On Delay Time	t _{D(ON)}	V _{DD} = -30V, I _D = -0.27A, R _{GEN} = 50ohm, V _{GS} = -10V	-	7.5	-	ns
Turn-Off Delay Time	t _{D(OFF)}		-	25	-	ns

Note 3. Short duration test pulse used to minimize self-heating



Electrical Characteristic Curves (Each Device)

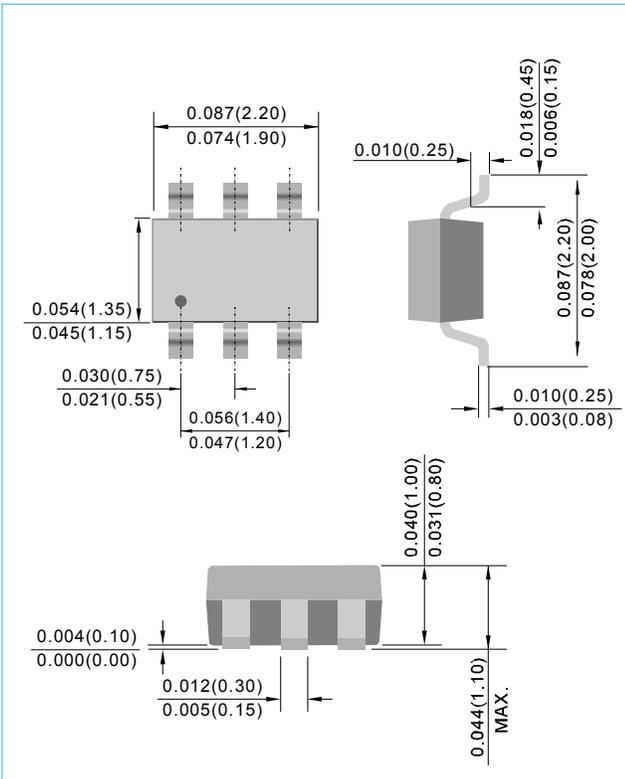
$T_J = 25^\circ\text{C}$ Unless otherwise noted



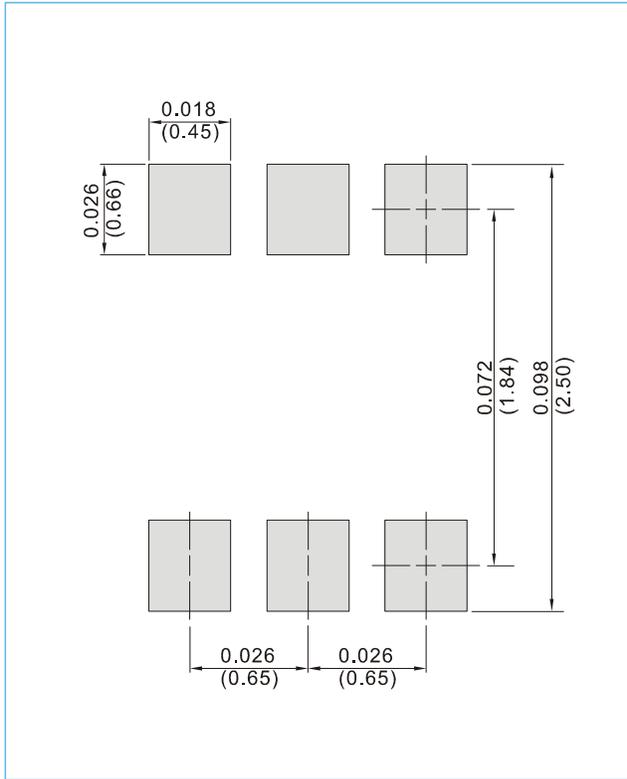


PACKAGE LAYOUT AND SUGGESTED PAD DIMENSIONS

SOT-363 Unit : inch(mm)



SOT-363 Unit : inch(mm)



ORDERING INFORMATION

BSS84DW T/R7 - 7 inch reel, 3K units per reel

BSS84DW T/R13 - 13 inch reel, 10K units per reel



BSS84DW

Part No_packing code_Version

BSS84DW_R1_00001

BSS84DW_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



BSS84DW

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.