Technical Data
TRANSISTOR

DISCRETE SEMICONDUCTOR INDUSTRIES

maximum ratings

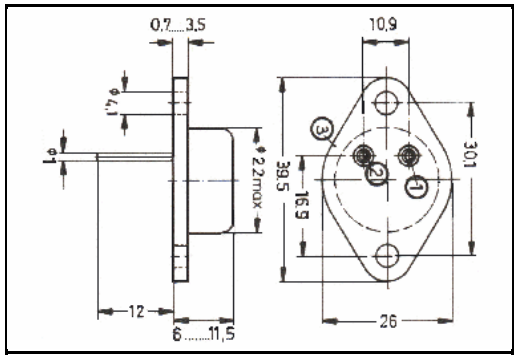
VDSX	160.0	V	NO.	2SJ50
VDG		V	TYPE	V-MOS
VGSS	14.0	V		P-CHANNEL
ID	7.0	A		
IDM		A	CASE	TO-3
IG		A		
Max. Power Dissipation (PT) at TC = 25 °C	100.0	W		
Max. Thermal Resistance (Rth J-C)	1.25	°C/W		
Max. Junction Temperature (TJ)	150.0	°C		

PERFORMANCE CHARACTERISTICS at T_C = 25°C, unless otherwise noted

NO.	SYMBOL	CONDITIONS		MIN.	MAX.	UNITS
1.	BVDSX	ID = 10.0 mA, VGS = 10.0 V	(1)	160.0	-	V
2.	BVGSS	IG = 0.1 mA		14.0	-	V
3.	VGS(OFF)	ID = 0.1 A, VDS = 10.0 V		0.15	1.5	V
4.	VDS(SAT)	ID = 7.0 A, VGS = 10.0 V		-	12.0	V
5.	Yfs	ID = 3.0 A, VDS = 10.0 V		0.7	1.4	S
6.	Ciss	VGS = 5.0 V, f = 1.0 MHz	(2)	-	900.0	pF
7.	Coss	VGS = 5.0 V, f = 1.0 MHz	(2)	-	400.0	pF
8.	Crss	VGS = 5.0 V, f = 1.0 MHz	(2)	-	40.0	pF
9.	t(ON)	VDD = 20.0 V, ID = 4.0 A	(2)	-	230.0	ns
10.	tOFF	VDD = 20.0 V, ID = 4.0 A	(2)	-	110.0	ns
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.	-	PIN 1 DRAIN		0.0	0.0	-
19.	-	PIN 2 GATE		0.0	0.0	-
20.	-	PIN 3 SOURCE (CASE)		0.0	0.0	-

Notes (1)pulse-tested tp ≤ 300 µs, duty cycle ≤ 2 %
(2)typical value

DIMENSIONS in mm



Marking 2SJ50
Customer GENERAL PURPOSE