

Source-Drain Diode

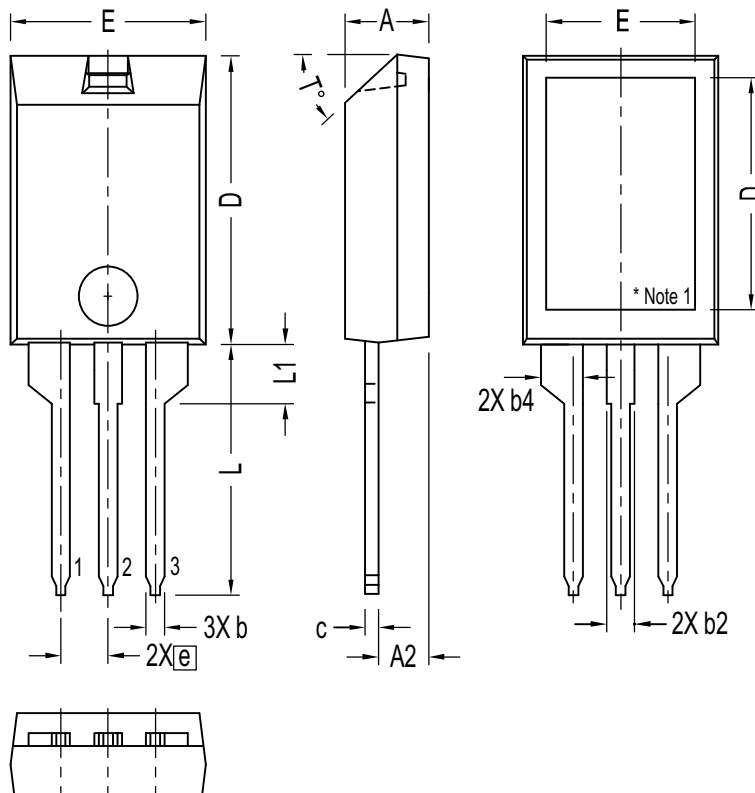
Symbol	Conditions	Characteristic Values			
		min.	typ.	max.	
I_S	$V_{GS} = 0\text{ V}$			34	A
V_{SD}	$I_F = 35\text{ A}; V_{GS} = 0\text{ V}$		1.0	1.2	V
t_{rr}	$I_F = 35\text{ A}; -di_F/dt = 200\text{ A}/\mu\text{s}; V_R = 400\text{ V}$		550		ns
Q_{RM}			30		μC
I_{RM}			100		A

Component

Symbol	Conditions	Maximum Ratings	
T_{VJ}	operating	-55...+150	°C
T_{stg}		-55...+150	°C
V_{ISOL}	RMS, lead-to-tab, 50/60 Hz, $f = 1\text{ minute}$	2500	V~
F_C	mounting force	11-65/2.4-11	N/lb.

Symbol	Conditions	Characteristic Values		
		min.	typ.	max.
R_{thCH}	with heatsink compound	0.15		K/W
Weight		2.7		g

ISOPLUS220™ Outline



SYM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.157	.197	4.00	5.00
A2	.098	.118	2.50	3.00
b	.035	.051	0.90	1.30
b2	.049	.065	1.25	1.65
b4	.093	.100	2.35	2.55
c	.028	.039	0.70	1.00
D	.591	.630	15.00	16.00
D1	.472	.512	12.00	13.00
E	.394	.433	10.00	11.00
E1	.295	.335	7.50	8.50
e	.100 BASIC		2.55 BASIC	
L	.512	.571	13.00	14.50
L1	.118	.138	3.00	3.50
T°			42.5°	47.5°

NOTE:

1. Bottom heatsink is electrically isolated from Pin 1, 2, or 3.
2. This drawing will meet dimensional requirement of JEDEC SS Product Outline TO-273 except D and D1 dimension.

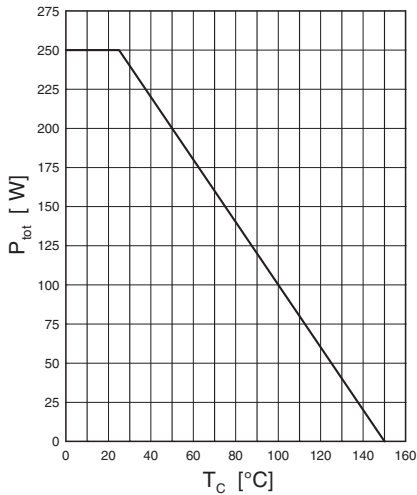


Fig. 1 Power Dissipation

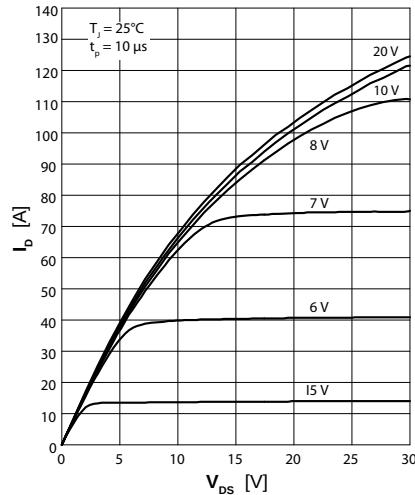


Fig. 2 Typ. Output Characteristics

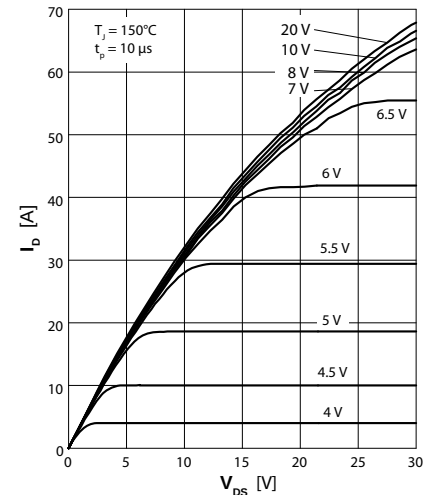


Fig. 3 Typ. Output Characteristics

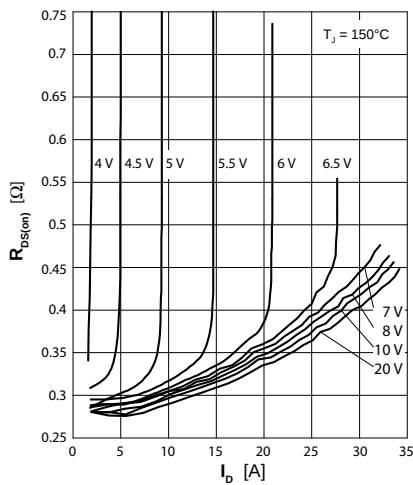


Fig. 4 Typ. Drain-Source on Resistance

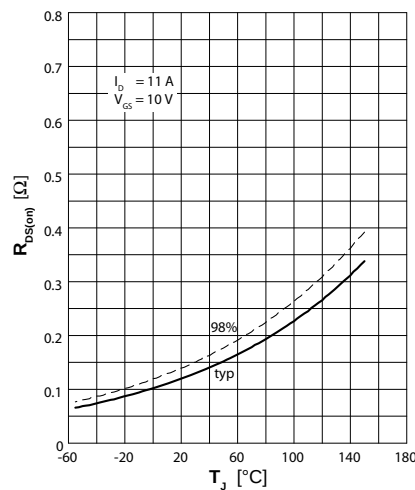


Fig. 5 Drain-Source On-State Resistance

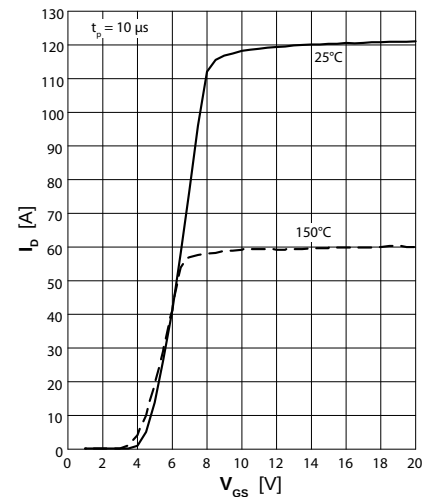


Fig. 6 Typ. Transfer Characteristics

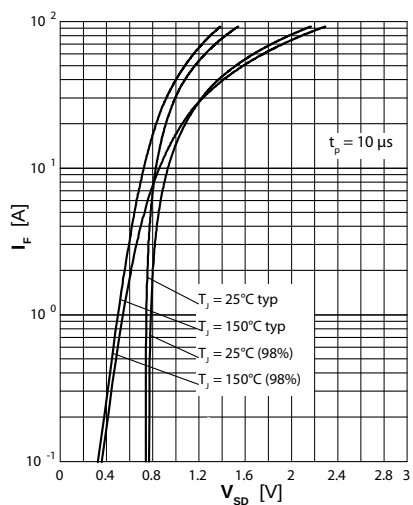


Fig. 7 Forward Characteristics of Body Diode

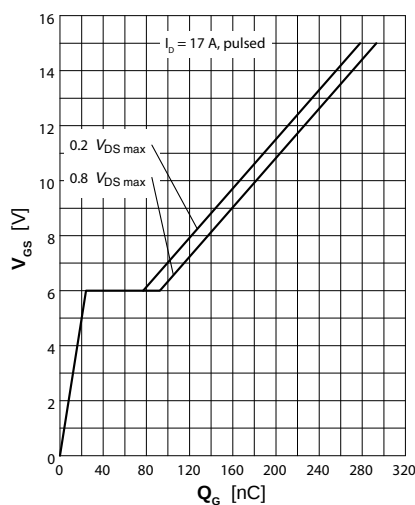


Fig. 8 Typ. Gate Charge

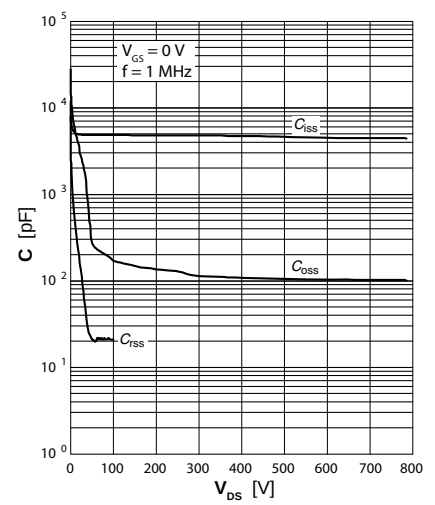


Fig. 9 Capacitance

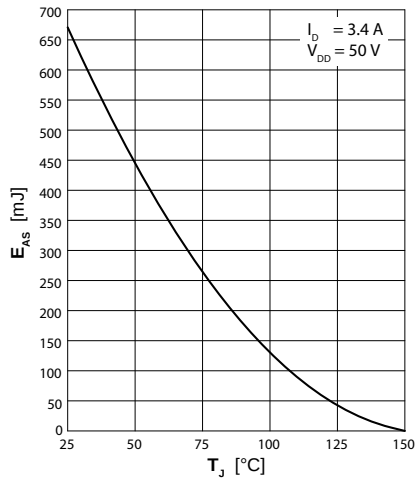


Fig. 10 Typ. Avalanche Energy

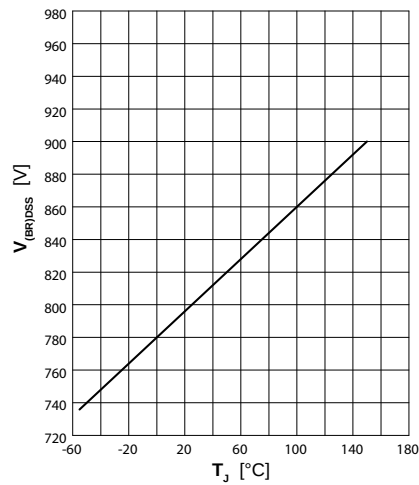


Fig. 11 Drain-Source Breakdown Voltage

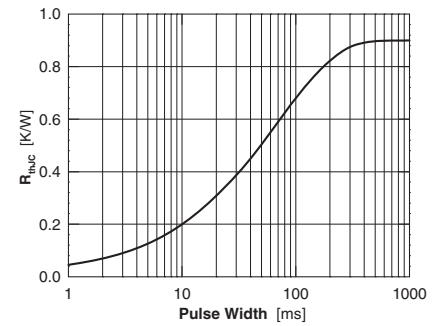


Fig. 12 Maximum Transient Thermal Resistance



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