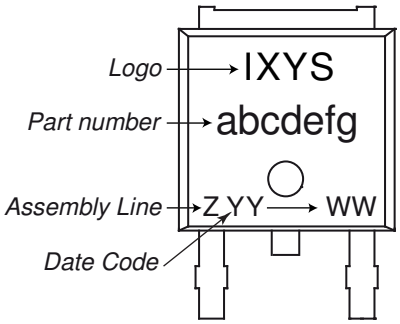
Schottky				Ratings			
Symbol	**Definition**	**Conditions**		**min.**	**typ.**	**max.**	**Unit**
V_{RSM}	*max. non-repetitive reverse blocking voltage*		T_{VJ} = 25°C			150	V
V_{RRM}	*max. repetitive reverse blocking voltage*		T_{VJ} = 25°C			150	V
I_R	*reverse current, drain current*	V_R = 150 V	T_{VJ} = 25°C			250	µA
		V_R = 150 V	T_{VJ} = 125°C			2.5	mA
V_F	*forward voltage drop*	I_F = 6 A	T_{VJ} = 25°C			0.78	V
		I_F = 12 A				0.86	V
		I_F = 6 A	T_{VJ} = 125°C			0.62	V
		I_F = 12 A				0.71	V
I_{FAV}	*average forward current*	T_C = 165°C	T_{VJ} = 175°C			6	A
		rectangular d = 0.5					
V_{F0}	*threshold voltage* } *for power loss calculation only*		T_{VJ} = 175°C			0.45	V
r_F	*slope resistance* }					14.6	mΩ
R_{thJC}	*thermal resistance junction to case*					3	K/W
R_{thCH}	*thermal resistance case to heatsink*				0.50		K/W
P_{tot}	*total power dissipation*		T_C = 25°C			50	W
I_{FSM}	*max. forward surge current*	t = 10 ms; (50 Hz), sine; V_R = 0 V	T_{VJ} = 45°C			120	A
C_J	*junction capacitance*	V_R = 24 V f = 1 MHz	T_{VJ} = 25°C		82		pF

Package TO-252 (DPak)			Ratings			
Symbol	**Definition**	**Conditions**	**min.**	**typ.**	**max.**	**Unit**
I_{RMS}	*RMS current*	per terminal [1]			20	A
T_{VJ}	*virtual junction temperature*		-55		175	°C
T_{op}	*operation temperature*		-55		150	°C
T_{stg}	*storage temperature*		-55		150	°C
Weight				0.3		g
F_C	*mounting force with clip*		20		60	N

[1] I_{RMS} is typically limited by the pin-to-chip resistance (1); or by the current capability of the chip (2). In case of (1) and a product with multiple pins for one chip-potential, the current capability can be increased by connecting the pins as one contact.

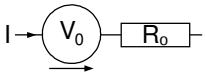
Product Marking



Ordering	Ordering Number	Marking on Product	Delivery Mode	Quantity	Code No.
Standard	DSS6-015AS	6Y150AS	Tape & Reel	2500	498912

Equivalent Circuits for Simulation

** on die level* T_{VJ} = 175 °C



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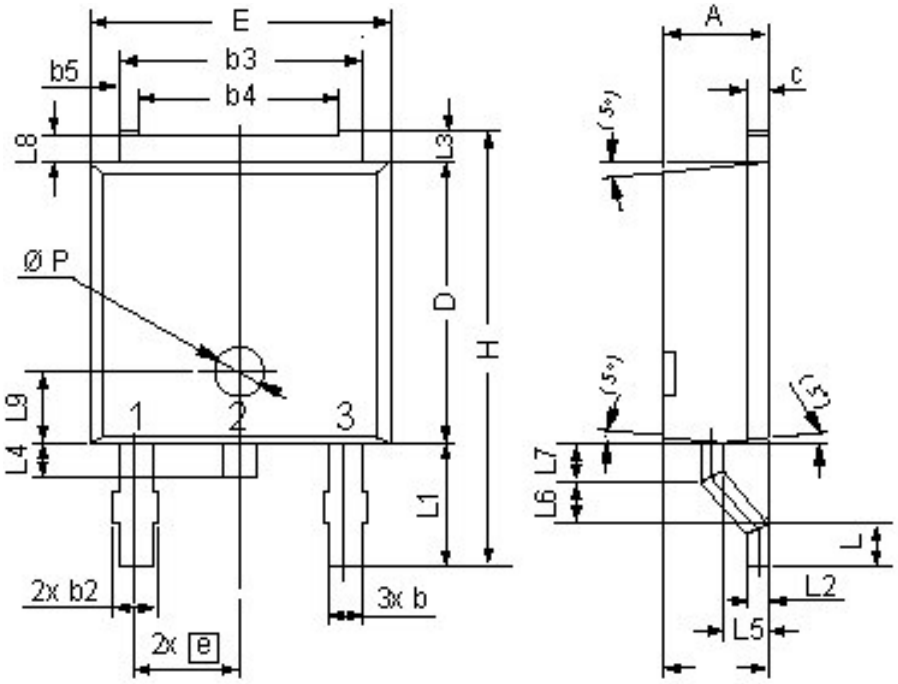
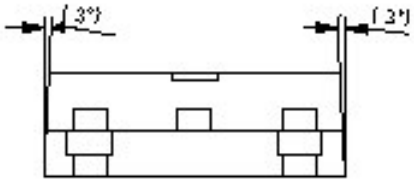
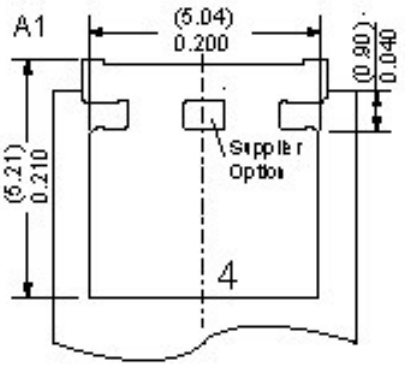
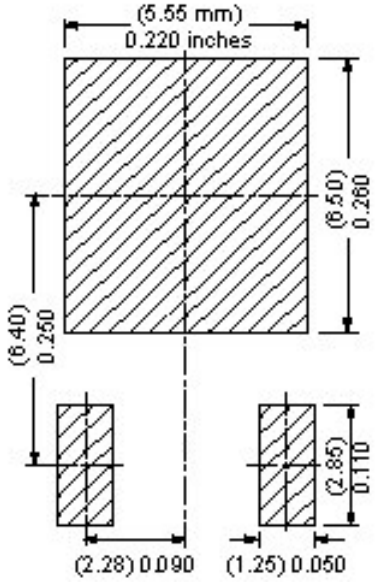
$V_{0\,max}$	*threshold voltage*	0.45	V
$R_{0\,max}$	*slope resistance **	11.4	mΩ

Outlines TO-252 (DPak)



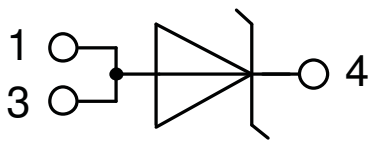






Recommended min. foot print

Dim.	Millimeters		Inches	
	min	max	min	max
A	2.20	2.40	0.087	0.094
A1	2.10	2.50	0.083	0.098
b	0.66	0.86	0.026	0.034
b2	-	0.96	-	0.038
b3	5.04	5.64	0.198	0.222
b4	4.34 BSC		0.171 BSC	
b5	0.50 BSC		0.020 BSC	
c	0.40	0.86	0.016	0.034
D	5.90	6.30	0.232	0.248
E	6.40	6.80	0.252	0.268
e	2.10	2.50	0.083	0.098
H	9.20	10.10	0.362	0.398
L	0.55	1.28	0.022	0.050
L1	2.50	2.90	0.098	0.114
L2	0.40	0.60	0.016	0.024
L3	0.50	0.90	0.020	0.035
L4	0.60	1.00	0.024	0.039
L5	0.82	1.22	0.032	0.048
L6	0.79	0.99	0.031	0.039
L7	0.81	1.01	0.032	0.040
L8	0.40	0.80	0.016	0.031
L9	1.50 BSC		0.059 BSC	
Ø P	1.00 BSC		0.039 BSC	



Schottky

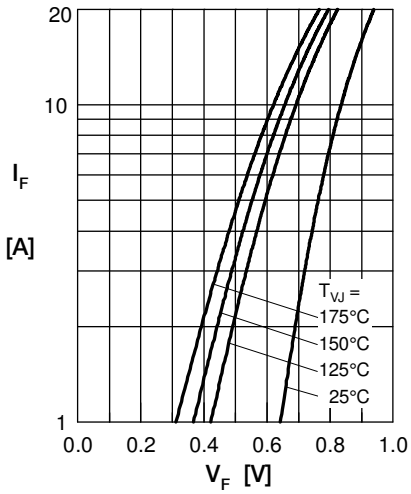


Fig. 1 Max. forward voltage drop characteristics

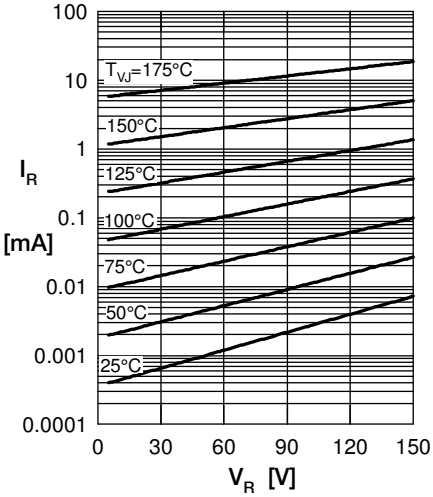


Fig. 2 Typ. reverse current I_R vs. reverse voltage V_R

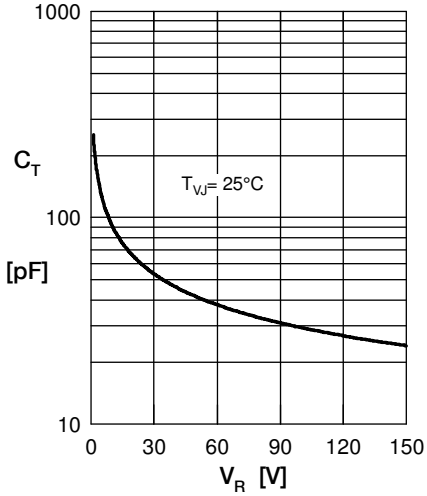


Fig. 3 Typ. junction capacitance C_T vs. reverse voltage V_R

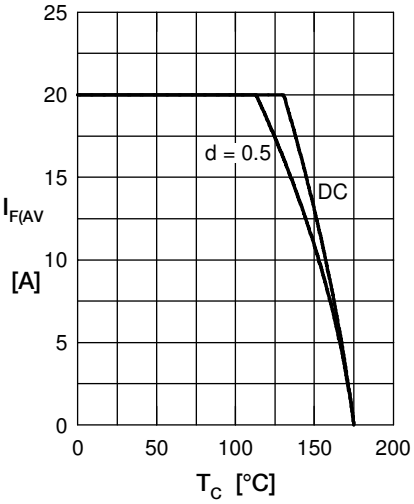


Fig. 4 Average forward current $I_{F(AV)}$ vs. case temp. T_C

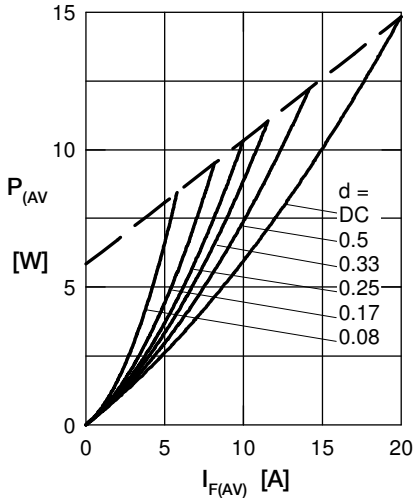


Fig. 5 Forward power loss characteristics

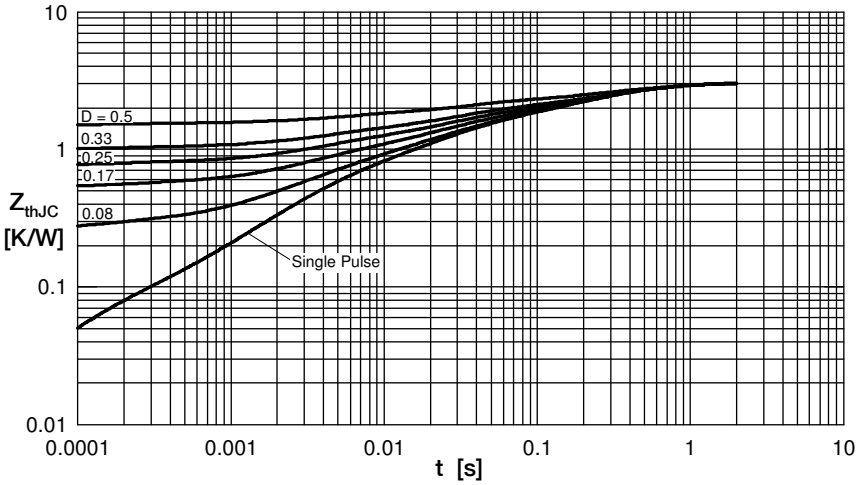


Fig. 6 Transient thermal impedance junction to case at various duty cycles

Note: All curves are per diode