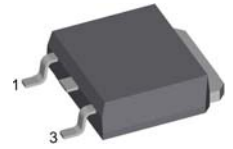
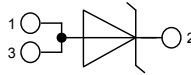


preliminary

# Schottky Diode

High Performance Schottky Diode  
 Low Loss and Soft Recovery  
 Single Diode

Part number

**DSS6-0025BS**


Backside: cathode

**Features / Advantages:**

- Very low  $V_f$
- Extremely low switching losses
- low  $I_{rm}$  values
- Improved thermal behaviour
- High reliability circuit operation
- Low voltage peaks for reduced protection circuits
- Low noise switching

**Applications:**

- Rectifiers in switch mode power supplies (SMPS)
- Free wheeling diode in low voltage converters

**Package:**

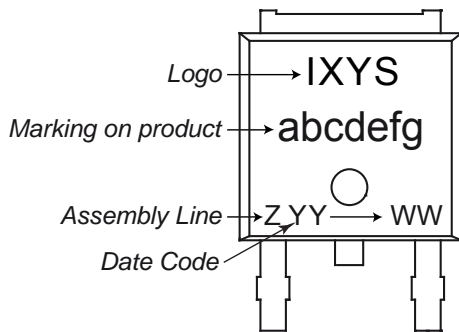
- Housing: TO-252 (DPak)
- Industry standard outline
- Epoxy meets UL 94V-0
- RoHS compliant

**Ratings**

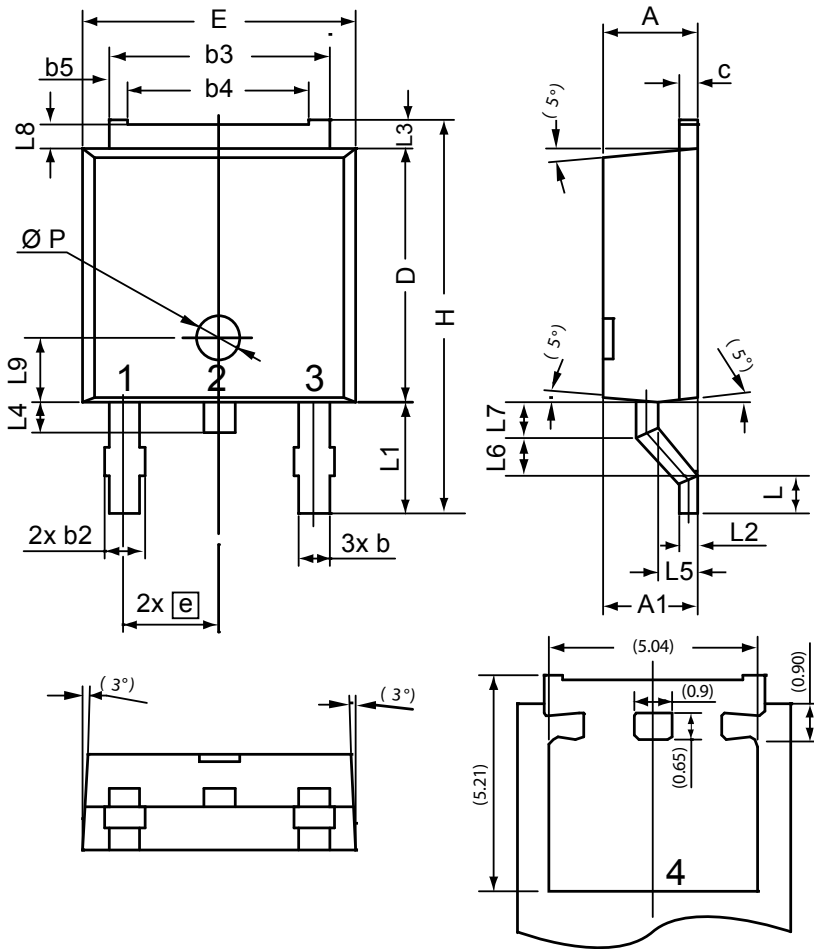
Symbol	Definition	Conditions	Ratings			Unit
			min.	typ.	max.	
$V_{RRM}$	max. repetitive reverse voltage				25	V
$I_R$	reverse current	$V_R = 25\text{ V}$			6	mA
		$V_R = 25\text{ V}$			40	mA
$V_F$	forward voltage	$I_F = 6\text{ A}$			0.40	V
		$I_F = 12\text{ A}$			0.47	V
		$I_F = 6\text{ A}$			0.30	V
		$I_F = 12\text{ A}$			0.40	V
$I_{FAV}$	average forward current	rectangular $d = 0.5$			6	A
$V_{F0}$	threshold voltage	} for power loss calculation only			0.18	V
$r_F$	slope resistance				15.9	m $\Omega$
$R_{thJC}$	thermal resistance junction to case				3.00	K/W
$T_{VJ}$	virtual junction temperature		-55		150	$^{\circ}\text{C}$
$P_{tot}$	total power dissipation				40	W
$I_{FSM}$	max. forward surge current	$t = 10\text{ ms}$ (50 Hz), sine			80	A
$C_J$	junction capacitance	$V_R = 5\text{ V}; f = 1\text{ MHz}$		639		pF

preliminary

Symbol	Definition	Conditions	Ratings			Unit
			min.	typ.	max.	
$I_{RMS}$	RMS current	per terminal <sup>1)</sup>			20	A
$R_{thCH}$	thermal resistance case to heatsink			0.50		K/W
$T_{stg}$	storage temperature		-55		150	°C
<b>Weight</b>				0.3		g
$F_c$	mounting force with clip		20		60	N

**Product Marking**


Ordering	Ordering Number	Marking on Product	Delivery Mode	Quantity	Code No.
Standard	DSS6-0025BS	DSS6-0025BS	Tape & Reel	2500	499064

**Outlines TO-252 (DPak)**


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	0.60	0.016	0.024
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	9.80	0.362	0.386
L	0.55	1.02	0.022	0.040
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	