

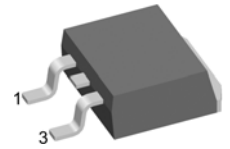
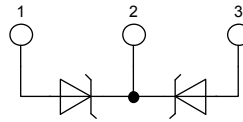
# Schottky Diode

High Performance Schottky Diode  
 Low Loss and Soft Recovery  
 Common Cathode

$V_{RRM} = 25\text{ V}$   
 $I_{FAV} = 2 \times 10\text{ A}$   
 $V_F = 0.37\text{ V}$

Part number

**DSSK18-0025BS**



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-263 (D2Pak)
- Industry standard outline
- Epoxy meets UL 94V-0
- RoHS compliant

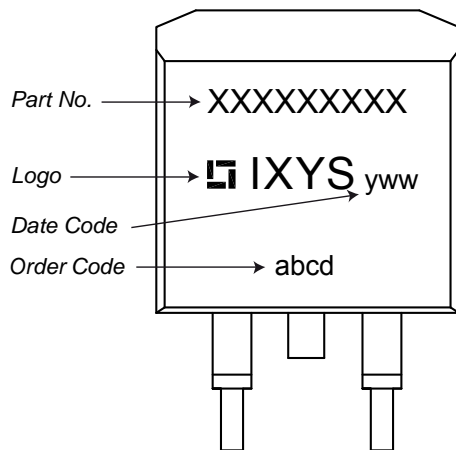
### Ratings

Symbol	Definition	Conditions	Ratings			Unit	
			min.	typ.	max.		
$V_{RRM}$	max. repetitive reverse voltage				25	V	
$I_R$	reverse current	$V_R = 25\text{ V}$			10	mA	
		$V_R = 25\text{ V}$			40	mA	
$V_F$	forward voltage	$I_F = 10\text{ A}$			0.45	V	
		$I_F = 20\text{ A}$			0.56	V	
		$I_F = 10\text{ A}$	$T_{vj} = 125^\circ\text{C}$			0.37	V
		$I_F = 20\text{ A}$	$T_{vj} = 125^\circ\text{C}$			0.51	V
$I_{FAV}$	average forward current	rectangular, $d = 0.5$			10	A	
$V_{FD}$	threshold voltage	} for power loss calculation only			0.20	V	
$r_F$	slope resistance				14.6	m $\Omega$	
$R_{thJC}$	thermal resistance junction to case				1.70	K/W	
$T_{vj}$	virtual junction temperature		-55		150	$^\circ\text{C}$	
$P_{tot}$	total power dissipation				75	W	
$I_{FSM}$	max. forward surge current	$t = 10\text{ ms}$ (50 Hz), sine			140	A	
$C_j$	junction capacitance	$V_R = \text{tbd V}$ ; $f = 1\text{ MHz}$		tbd		pF	

Symbol	Definition	Conditions	Ratings			Unit
			min.	typ.	max.	
$I_{RMS}$	RMS current	per pin <sup>1)</sup>			35	A
$R_{thCH}$	thermal resistance case to heatsink			0.25		K/W
$T_{stg}$	storage temperature		-55		150	°C
<b>Weight</b>				2		g
$F_c$	mounting force with clip		20		60	N

<sup>1)</sup>  $I_{RMS}$  is typically limited by: 1. pin-to-chip resistance; or by 2. current capability of the chip.  
 In case of 1, a common cathode/anode configuration and a non-isolated backside, the whole current capability can be used by connecting the backside.

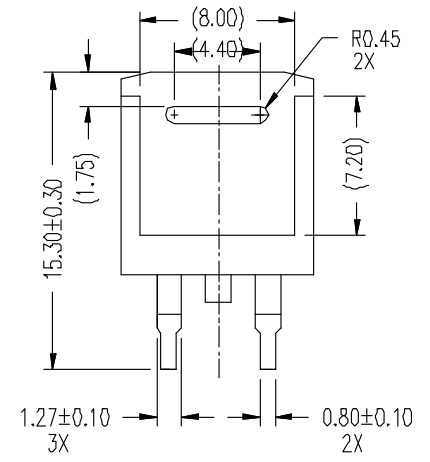
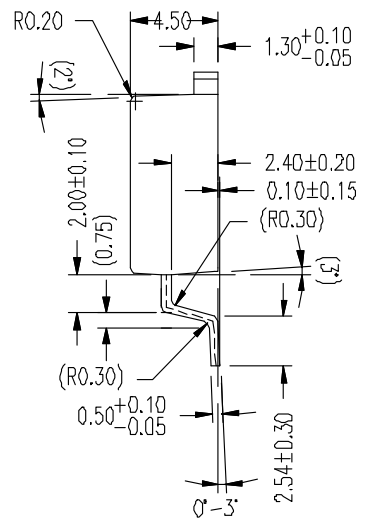
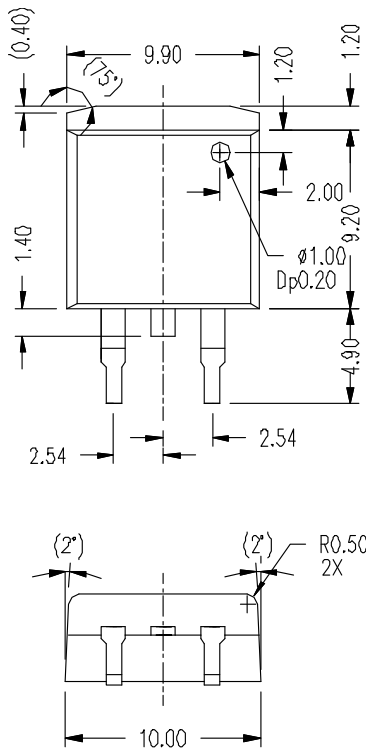
### Product Marking



Ordering	Part Name	Marking on Product	Delivering Mode	Base Qty	Code Key
Standard	DSSK18-0025BS	DSSK18-0025BS	Tape and Reel	800	499099

Similar Part	Package	Voltage class
DSB30C30PB	TO-220	30

**Outlines TO-263 (D2Pak)**



NOTE:  
 1. These dimensions do not include mold protusion.  
 2. ( ) is reference dimension only.