



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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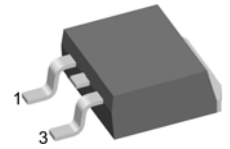
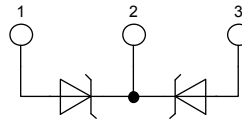
# Schottky Diode

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

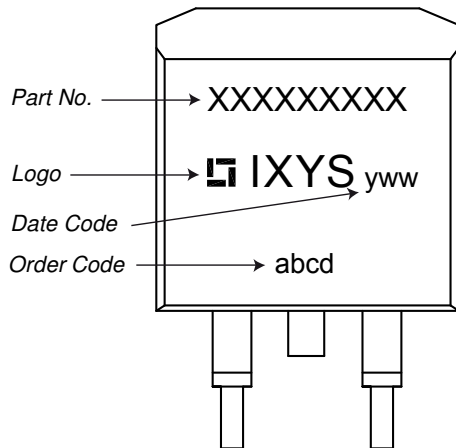
**Ratings**

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.

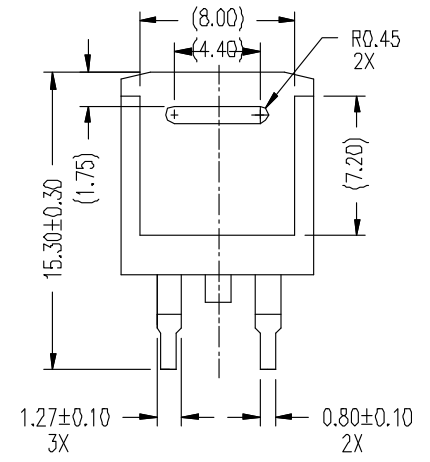
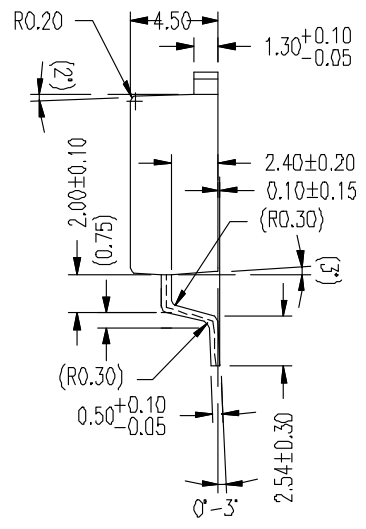
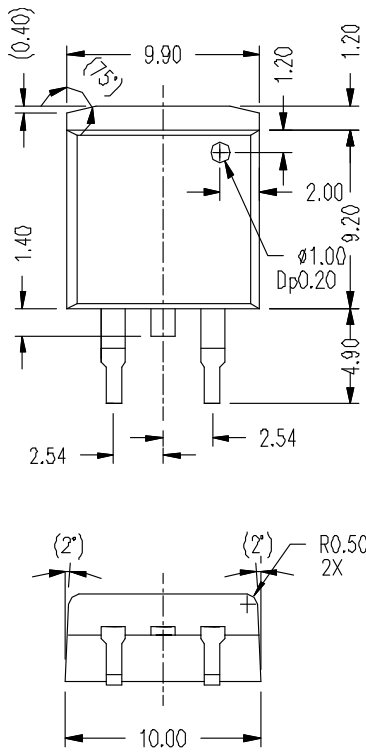
### Product Marking



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.