

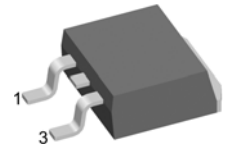
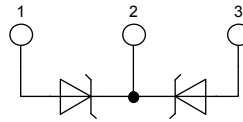
Schottky Diode

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

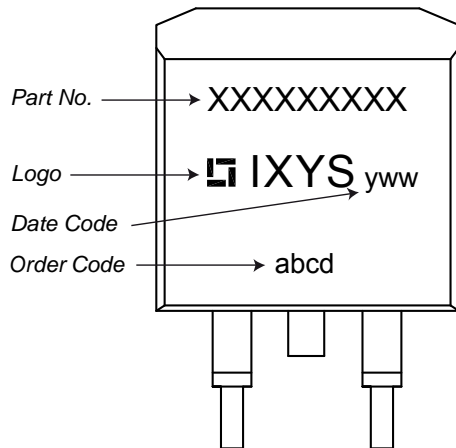
Symbol	Definition	Conditions	Ratings			Unit	
			min.	typ.	max.		
V_{RRM}	max. repetitive reverse voltage				25	V	
I_R	reverse current	$V_R = 25\text{ V}$			10	mA	
		$V_R = 25\text{ V}$			40	mA	
V_F	forward voltage	$I_F = 10\text{ A}$			0.45	V	
		$I_F = 20\text{ A}$			0.56	V	
		$I_F = 10\text{ A}$	$T_{vj} = 125^\circ\text{C}$			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 Ω	
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	

preliminary

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

¹⁾ 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.

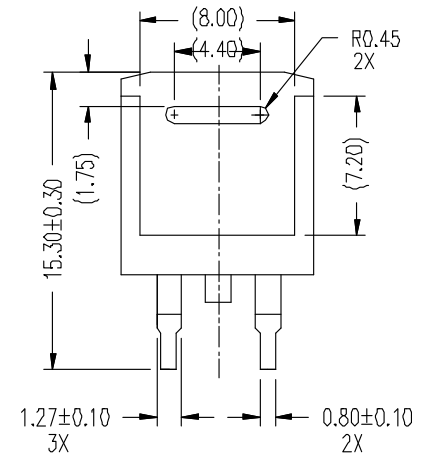
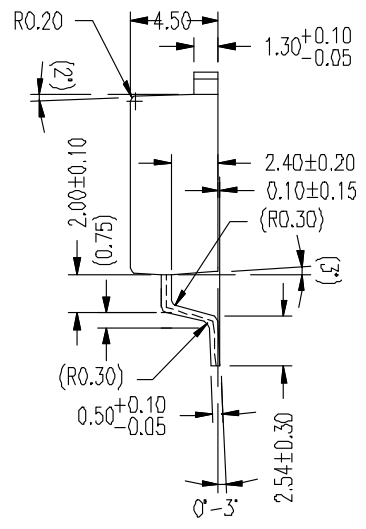
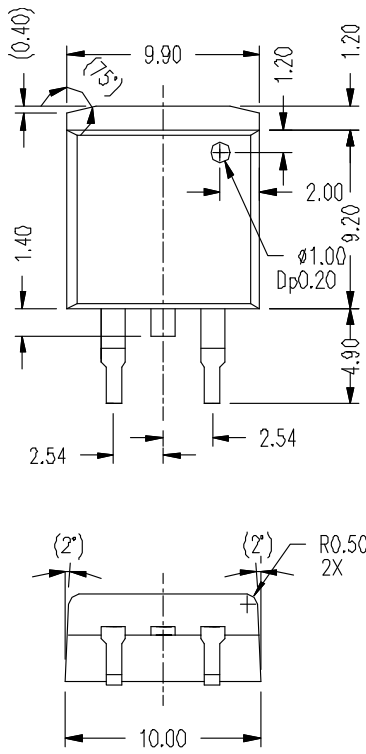
Product Marking



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.