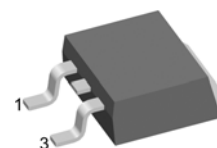
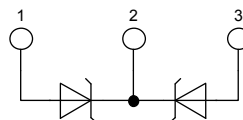


Schottky Diode

High Performance Schottky Diode
Low Loss and Soft Recovery
Common Cathode

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

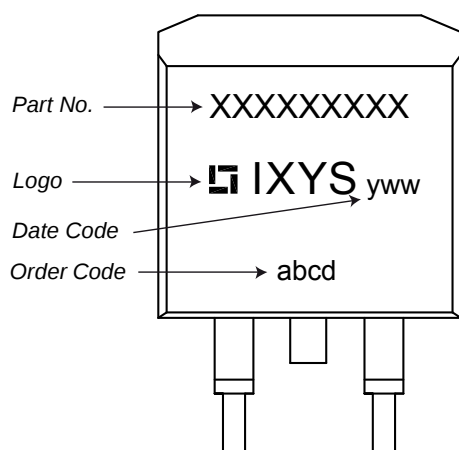
Ratings

Symbol	Definition	Conditions		min.	typ.	max.	Unit
V_{RRM}	max. repetitive reverse voltage		$T_{VJ} = 25^\circ\text{C}$			25	V
I_R	reverse current	$V_R = 25\text{V}$	$T_{VJ} = 25^\circ\text{C}$			10	mA
		$V_R = 25\text{V}$	$T_{VJ} = 100^\circ\text{C}$			40	mA
V_F	forward voltage	$I_F = 10\text{A}$	$T_{VJ} = 25^\circ\text{C}$			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
		$I_F = 20\text{A}$				0.51	V
I_{FAV}	average forward current	rectangular, $d = 0.5$	$T_C = 140^\circ\text{C}$			10	A
V_{F0}	threshold voltage	} for power loss calculation only	$T_{VJ} = 150^\circ\text{C}$			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		$T_C = 25^\circ\text{C}$			75	W
I_{FSM}	max. forward surge current	$t = 10\text{ ms}$ (50 Hz), sine	$T_{VJ} = 45^\circ\text{C}$			140	A
C_J	junction capacitance	$V_R = \text{tbd V}$; $f = 1\text{ MHz}$	$T_{VJ} = 25^\circ\text{C}$		tbd		pF

Symbol	Definition	Conditions	Ratings			
			min.	typ.	max.	Unit
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

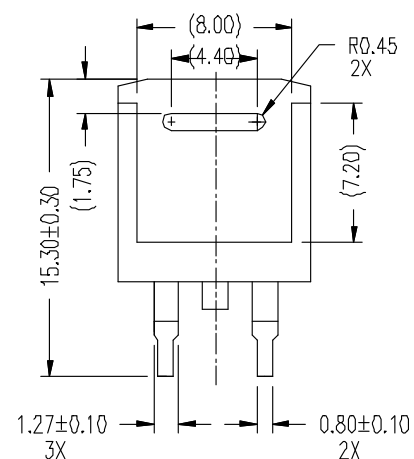
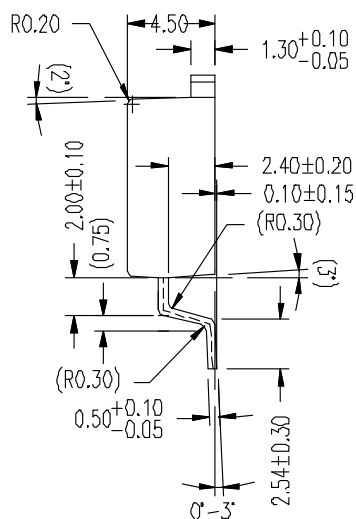
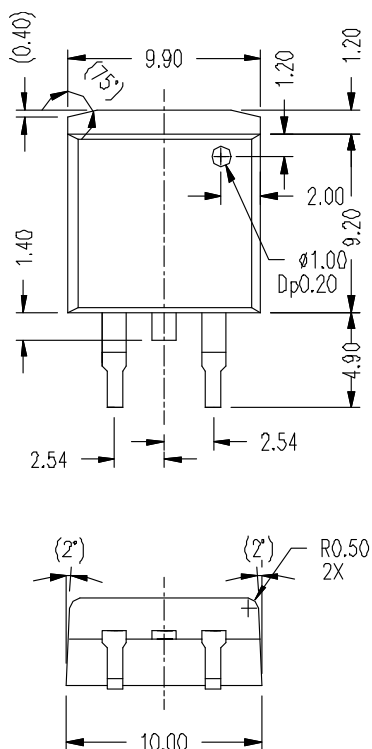
¹⁾ I_{RMS} is typically limited by: 1. pin-to-chip resistance; or by 2. current capability of the chip.
In case of 1, a common cathode/anode configuration and a non-isolated backside, the whole current capability can be used by connecting the backside.

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.