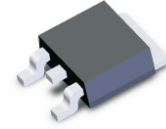


CDBDSC5650-G

Reverse Voltage: 650 V

Forward Current: 5 A

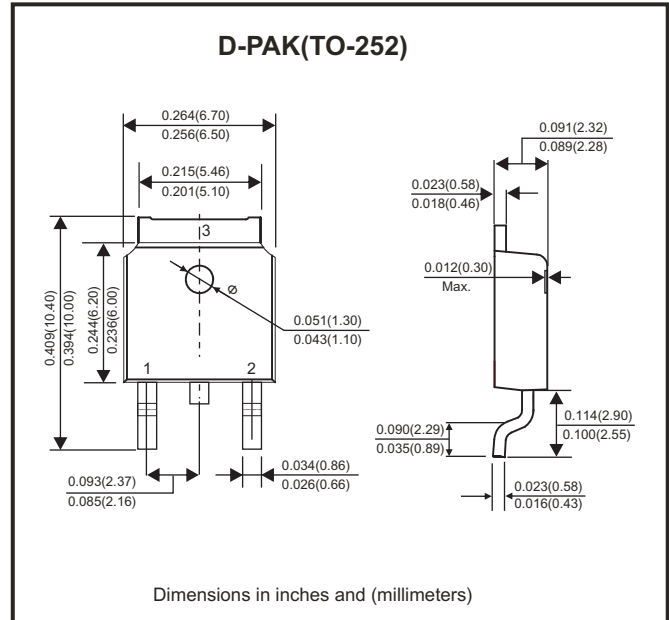
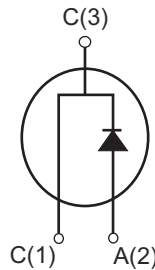
RoHS Device



Features

- Rated to 650V at 5 Amps
- Short recovery time
- High speed switching possible
- High frequency operation.
- High temperature operation.
- Temperature independent switching behaviour.
- Positive temperature coefficient on V_f

Circuit Diagram



Maximum Ratings (at $T_A=25^\circ\text{C}$, unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Repetitive peak reverse voltage		V_{RRM}	650	V
Surge peak reverse voltage		V_{RSM}	650	V
DC blocking voltage		V_{DC}	650	V
Continuous forward current	$T_c = 25^\circ\text{C}$	I_F	21.5	A
	$T_c = 135^\circ\text{C}$		10	
	$T_c = 160^\circ\text{C}$		5	
Repetitive peak forward surge current	$T_c = 25^\circ\text{C}$, $t_p = 10\text{ms}$ Half sine wave, $D = 0.3$	I_{FRM}	40	A
Non-repetitive peak forward surge current	$T_c = 25^\circ\text{C}$, $t_p = 10\text{ms}$ Half sine wave	I_{FSM}	80	A
Power dissipation	$T_c = 25^\circ\text{C}$	P_{TOT}	85.8	W
	$T_c = 110^\circ\text{C}$		37.2	
Typical thermal resistance	Junction to case	$R_{\theta JC}$	1.748	$^\circ\text{C/W}$
Operating junction temperature range		T_J	-55 ~ +175	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55 ~ +175	$^\circ\text{C}$

Electrical Characteristics (at $T_A=25^\circ\text{C}$, unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward voltage	$I_F = 5\text{A}, T_J = 25^\circ\text{C}$	V_F		1.35	1.7	V
	$I_F = 5\text{A}, T_J = 175^\circ\text{C}$			1.55	2.5	
Reverse current	$V_R = 650\text{V}, T_J = 25^\circ\text{C}$	I_R		10	100	μA
	$V_R = 650\text{V}, T_J = 175^\circ\text{C}$			15	200	
Total capacitive charge	$V_R = 400\text{V}, T_J = 150^\circ\text{C}$ $Q_C = \int_0^{V_R} C(V) dv$	Q_C		23		nC
Total capacitance	$V_R = 0\text{V}, T_J = 25^\circ\text{C}, f = 1\text{MHz}$	C		424	434	pF
	$V_R = 200\text{V}, T_J = 25^\circ\text{C}, f = 1\text{MHz}$			44	45	
	$V_R = 400\text{V}, T_J = 25^\circ\text{C}, f = 1\text{MHz}$			42.5	43	

RATING AND CHARACTERISTIC CURVES (CDBDSC5650-G)

Fig.1 - Forward Characteristics

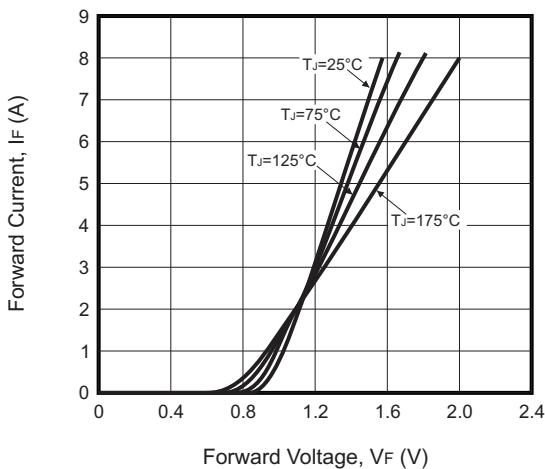


Fig.2 - Reverse Characteristics

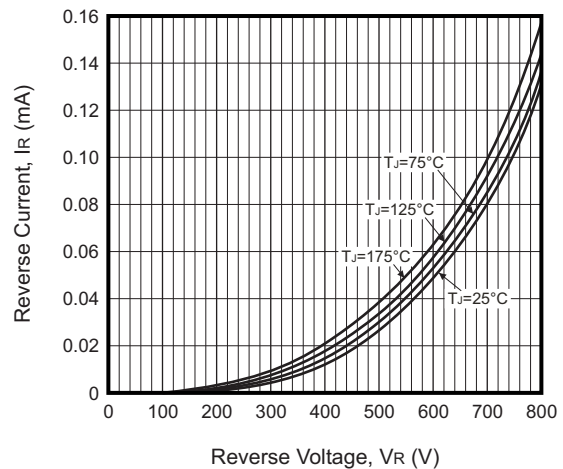


Fig.3 - Current Derating

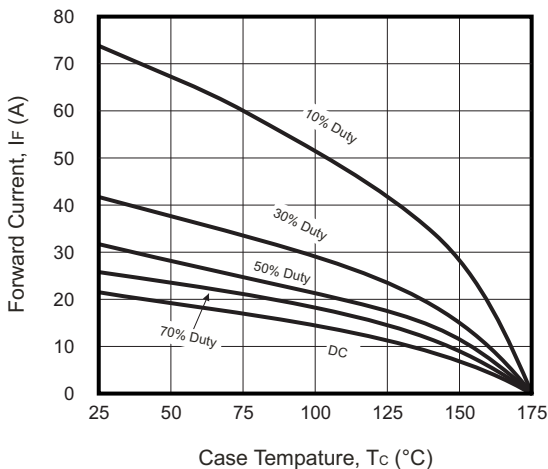
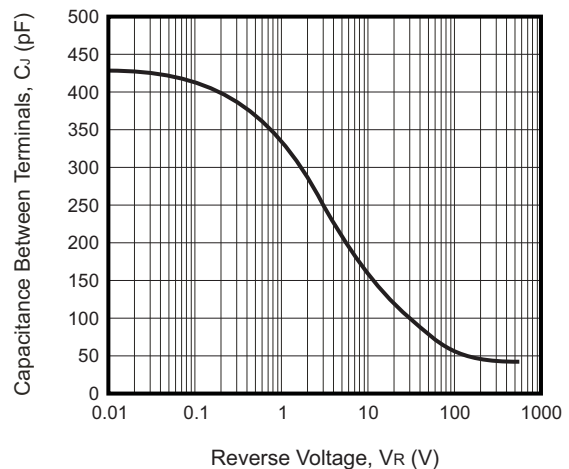


Fig.4 - Capacitance vs. Reverse Voltage



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Schottky Diodes & Rectifiers](#) category:

Click to view products by [Comchip](#) manufacturer:

Other Similar products are found below :

[MA4E2039](#) [D1FH3-5063](#) [MBR10100CT-BP](#) [MBR1545CT](#) [MMBD301M3T5G](#) [RB160M-50TR](#) [RB551V-30](#) [BAS16E6433HTMA1](#) [BAT](#)
[54-02LRH E6327](#) [NSR05F40QNXT5G](#) [NTE555](#) [JANS1N6640](#) [SB07-03C-TB-H](#) [SK310-T](#) [SK32A-LTP](#) [SK33A-TP](#) [SK34B-TP](#) [SS3003CH-](#)
[TL-E](#) [GA01SHT18](#) [CRS10I30A\(TE85L,QM](#) [MA4E2501L-1290](#) [MBRA140TRPBF](#) [MBRB30H30CT-1G](#) [SB007-03C-TB-E](#) [SK32A-TP](#)
[SK33B-TP](#) [SK35A-TP](#) [SK38B-TP](#) [NRVBM120LT1G](#) [NTE505](#) [NTSB30U100CT-1G](#) [SS15E-TP](#) [VS-6CWQ10FNHM3](#) [ACDBA1100LR-HF](#)
[ACDBA1200-HF](#) [ACDBA140-HF](#) [ACDBA2100-HF](#) [ACDBA3100-HF](#) [CDBQC0530L-HF](#) [CDBQC0240LR-HF](#) [BAT6202VH6327XTSA1](#)
[ACDBA340-HF](#) [ACDBA260LR-HF](#) [ACDBA1100-HF](#) [SK310B-TP](#) [MA4E2502L-1246](#) [MA4E2502H-1246](#) [NRVBM120ET1G](#)
[NSR01L30MXT5G](#) [NTE573](#)