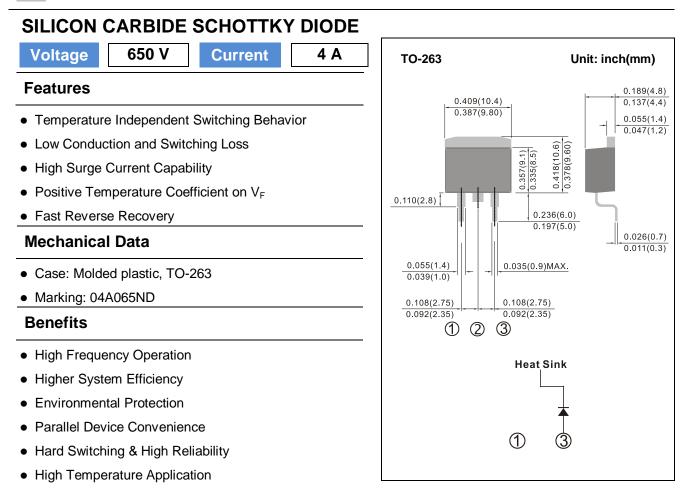
	1.1
ΡΛΝ	JIT
	SEMI
	CONDUCTOR



Maximum Ratings

PARAMETER	SYMBOL	TEST CONDITIONS	VALUE	UNITS
Maximum Repetitive Peak Reverse Voltage	Vrrm	TJ=25°C	650	V
Maximum RMS Voltage	Vrsm	TJ=25°C	650	V
Maximum DC Blocking Voltage	Vr	TJ=25°C	650	V
	lf(AV)	Tc=25°C	11	А
Continuous Forward Current		Tc=125°C	6	А
		Tc=150°C	4	А
Repetitive Peak Forward Surge Current		Tc=25°C	26	А
(T _P =10mS, Half Sine Wave, D=0.1)	I _{FRM}	Tc=125°C	23	А



Maximum Ratings

PARAMETER	SYMBOL	TEST CONDITIONS	VALUE	UNITS
Non-Repetitive Peak Forward Surge Current		Tc=25°C	29	А
(T _P =10mS, Half Sine Wave)		Tc=125°C	24	А
Non-Repetitive Peak Forward Surge Current	I _{FSM}	T 0700	127	A
(T _P =10uS, Pulse)		Tc=25°C		
	P _D	Tc=25°C	75	W
Power Dissipation		Tc=125°C	25	W
Operating Junction Temperature	TJ		175	°C
Storage Temperature	T _{STG}		-55 to 175	°C
Thermal Resistance Junction to Case	R _{θJC}		2	°C/W

Electrical Characteristics

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
DC Blacking Voltage	V _{DC}	I _R =100uA, TJ=25°C	650	770	-	V
Forward Voltage	V _F	I _F =4A, TJ=25°C	-	1.5	1.8	V
		Ι _F =4A, Τ _J =175°C	-	1.9	2.2	V
Reverse Current	I _R	V _R =650V, TJ=25°C	-	1	50	uA
		V _R =650V, TJ=175°C	-	6	190	uA
Total Capacitive Charge	Q _c	I _F =4A, di/dt=300A/uS,	-	11	-	
		V _R =400V, TJ=25°C				nC
Total Capacitance	С	V _R =1V, T _J =25°C, f=1MHz	-	155	-	pF
		V _R =200V, TJ=25°C, f=1MHz	-	25	-	pF
		V _R =400V, TJ=25°C, f=1MHz	-	25	-	pF

SEM CONDUCTOR

PANJ



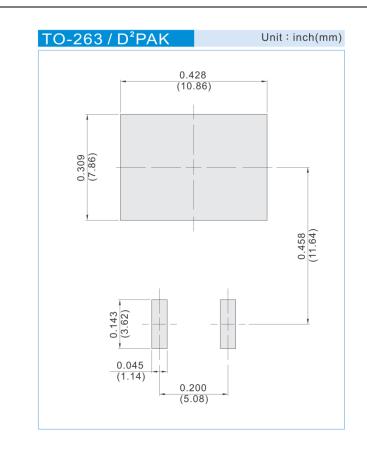
SiC04A065ND **TYPICAL CHARACTERISTIC CURVES** 6 100 Reverse Leakage Current (uA) 5 Tj=25°C Tj=25°C Forward Current (A) 80 Tj=75°C Tj=75°C Tj=125°C 4 Tj=125°C 60 Tj=175°C Tj=175°C 3 40 2 20 1 0 0 200 400 600 Reverse Voltage (V) 0.5 1.0 1.5 Forward Voltage (V) 0.0 2.5 2.0 0 800 **Fig.1 Forward Characteristics Fig.2 Reverse Characteristics** 200 10³ Non-Repetitive Forward Surge Current (A) ₂₀₁ Tc=25°C 160 Capacitance (pF) 120 80 40 0 10¹ 10² 10³ Pulse Width (uS) 10¹ 104 10 100 Reverse Voltage (V) 0 1000 Fig.4 Non-Repetitive Peak Forward Surge Current (Pulse Mode) Fig.3 Capacitance vs. Reverse Voltage 100 14 Peak Forward Current (A) 12 80 Power Dissipation (W) VDC 10 60 8 40 6 4 20 2 0 <u>_</u>25 0 100 25 50 75 125 150 175 50 75 100 125 150 175 Case Temperature (°C) Case Temperature (°C) **Fig.5 Power Derating Fig.6 Current Derating**



Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SIC04A065ND_R2_00001	TO-263	800pcs / 13" reel	04A065ND	Halogen free

Mounting Pad Layout





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