ShinDengen

S60SC4MT

Schottky Barrier Diodes
40V, 60A

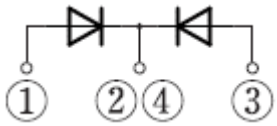
Feature

- High Recovery Speed
- Low V_F
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): MTO-3PT
Package (JEDEC Code): TO-247AD

Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : Tc=25℃)

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 150	℃
Junction temperature	Tj		-55 to 150	℃
Repetitive peak reverse voltage	V_{RRM}		40	V
Repetitive peak surge reverse voltage	V_{RRSM}	Pulse width 0.5ms, duty=1/40	45	V
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, Rating for each diode IF(AV)/2, With heatsink, Tc=127℃	60	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive, 1cycle, Peak value, Tj=25℃	500	A
Mounting torque	TOR	(Recommended torque：0.5N･m)	0.8	N･m

※ ：See the original Specifications

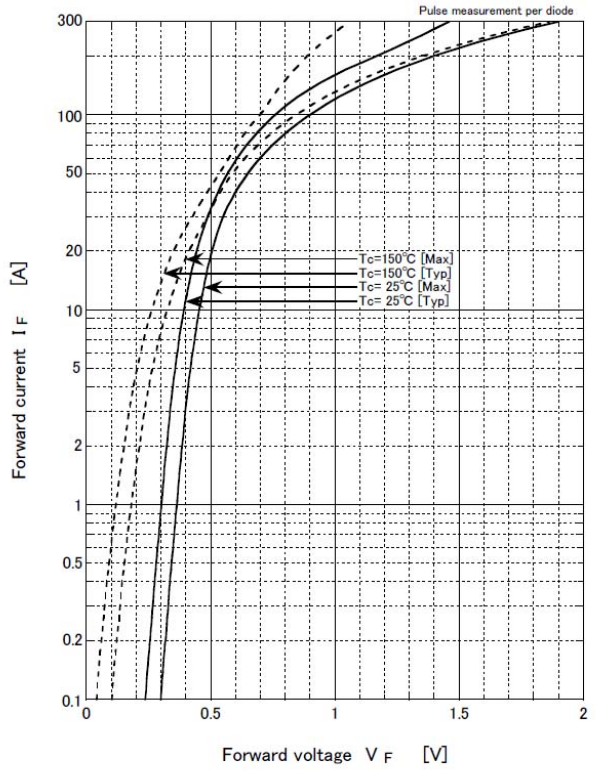
Electrical Characteristics (unless otherwise specified : Tc=25℃)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=30A, Pulse measurement, per diode		0.49	0.55	V
Reverse current	I_R	VR=40V, Pulse measurement, per diode			3	mA
Total capacitance	Ct	f=1MHz, VR=10V, per diode		790		pF
Thermal resistance	Rth(j-c)	Junction to case, With heatsink			0.5	℃/W

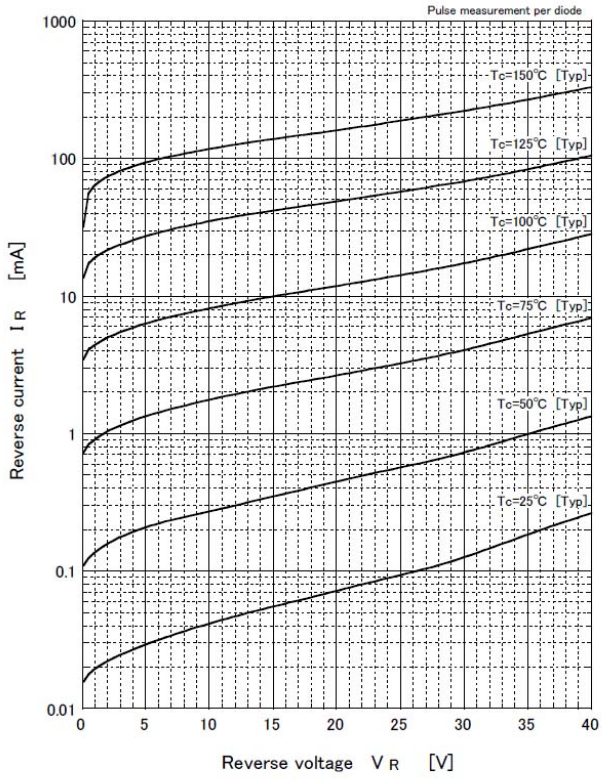
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

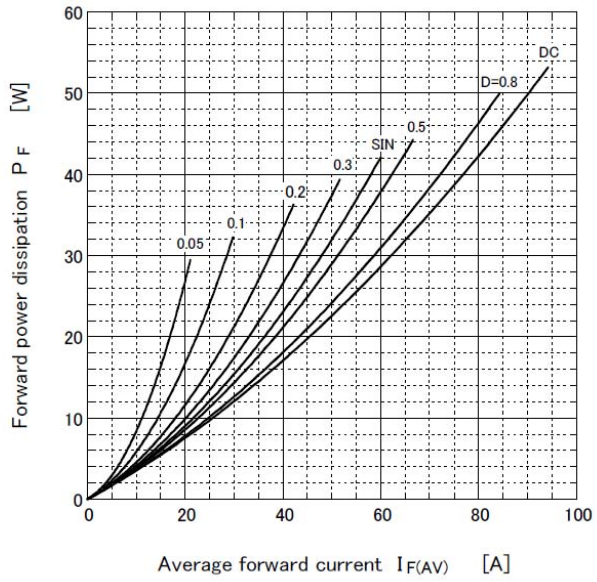
Forward voltage



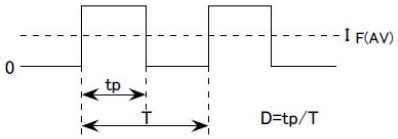
Reverse current



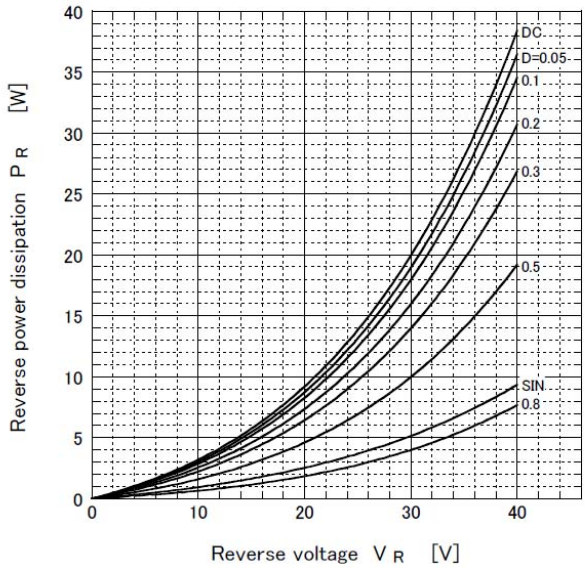
Forward power dissipation



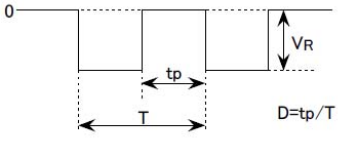
●Tj =150°C



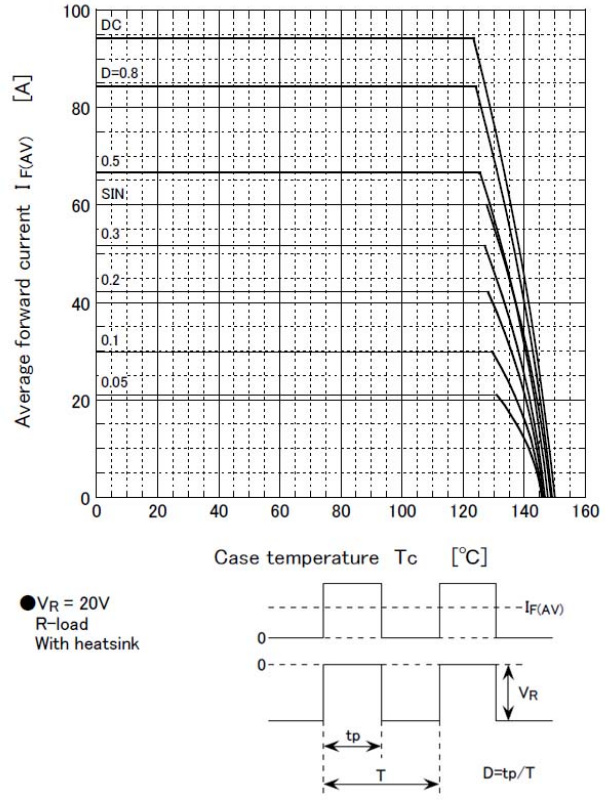
Reverse power dissipation



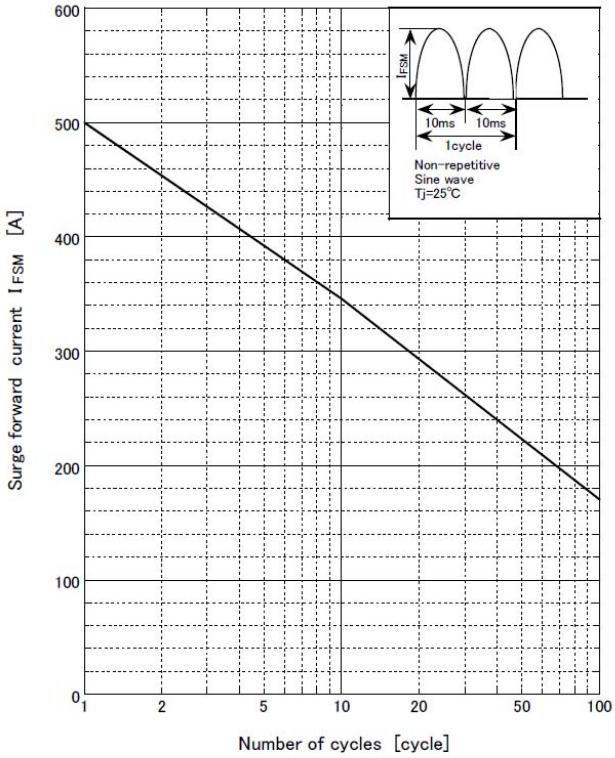
●Tj =150°C



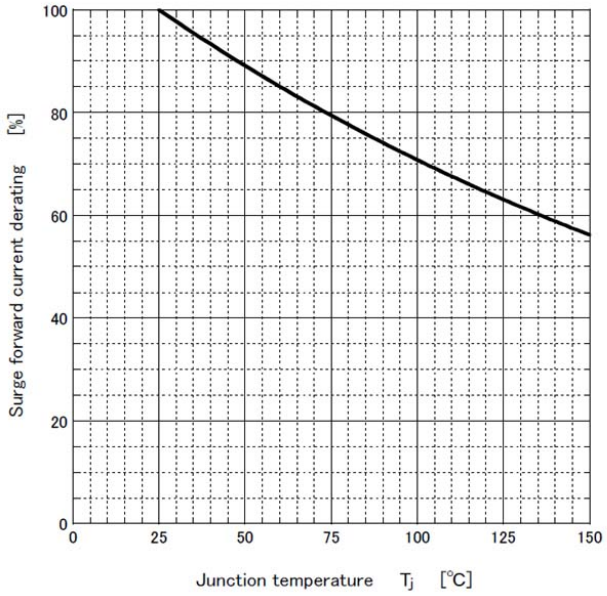
Derating curve

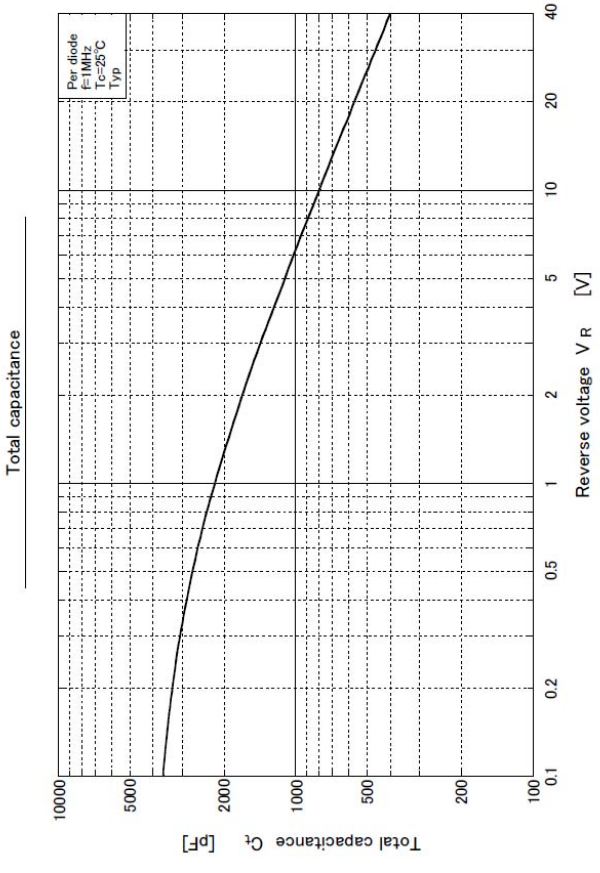


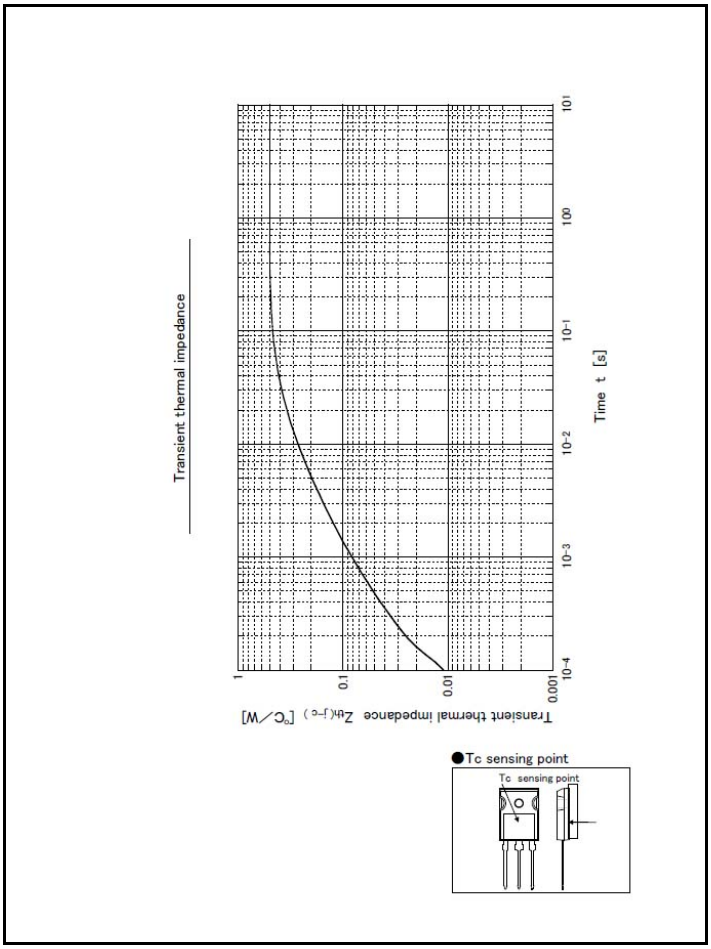
Surge forward current capability



Surge forward current derating
vs Junction temperature





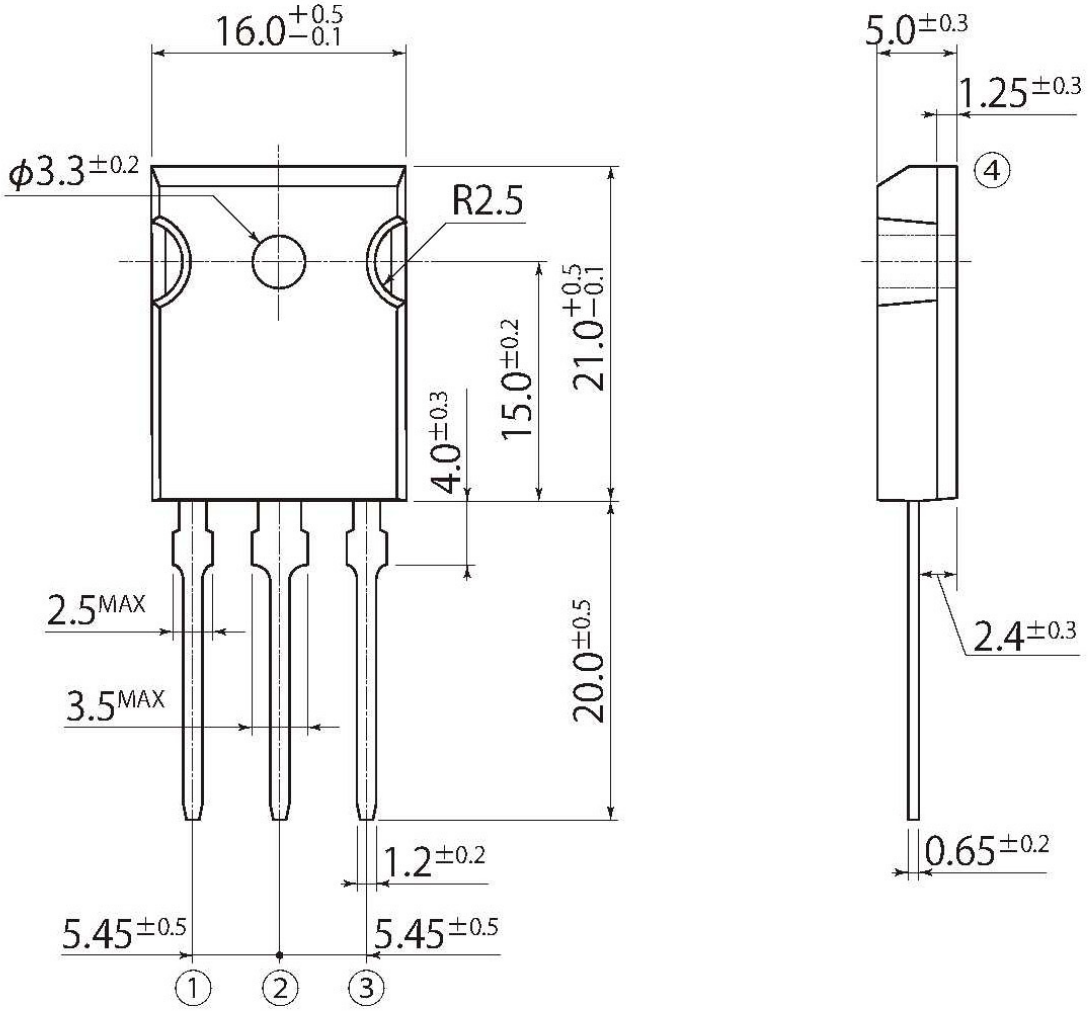

Transient thermal impedance
Transient thermal impedance Zth(j-c) [°C/W]
1
0.1
0.01
0.001
10-4
10-3
10-2
10-1
100
101
Time t [s]
●Tc sensing point
Tc sensing point

Outline Dimensions

unit:mm

K5

JEDEC Code	TO-247AD
JEITA Code	–
House Name	MTO-3PT(3pin)



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