

# BK300SCP (Current Model) BK300SCE(E-Model) Characteristics

08.June.2013

Panasonic Energy (Wuxi) Co., Ltd.

		Current Model	E - Model
Nominal Voltage		1.2 V	1.2 V
Rated (Minimum) capacity		2800 mAh	2800 mAh
Average capacity (for reference only)		3050 mAh	3050 mAh
Dimension (with sleeve)	Diameter	23.0+0/-1.0 mm	23.0+0/-1.0 mm
	Height	43.0+0/-1.5 mm	43.0+0/-1.5 mm
Weight		Approx. 57 g	Approx. 57 g
Internal Impedance at 1000Hz		Approx. 4 mΩ	Approx. 4 mΩ
Maximum Discharge Current		30000 mA	30000 mA
Charge	Standard	280 mA × 16 hours	280 mA × 16 hours
	Rapid *1	3000 mA × 1.2 hours (with control system)	3000 mA × 1.2 hours (with control system)
Ambient Temperature (Ta)	Charge	Standard	0°C ≤ Ta ≤ +45 °C (32 ≤ Ta ≤ 113 °F)
		Rapid	0°C ≤ Ta ≤ +40 °C (32 ≤ Ta ≤ 104 °F)
	Discharge		-10°C ≤ Ta ≤ +65 °C (14 ≤ Ta ≤ 149 °F)
	Storage	within 1 year	-20°C ≤ Ta < +35°C (-4 ≤ Ta < 95 °F)
within 6 months		-20°C ≤ Ta < +45 °C (-4 ≤ Ta < 113 °F)	-20°C ≤ Ta < +45 °C (-4 ≤ Ta < 113 °F)
within 1 month		-20°C ≤ Ta < +55 °C (-4 ≤ Ta < 131 °F)	-20°C ≤ Ta < +55 °C (-4 ≤ Ta < 131 °F)
within 1 week		-20°C ≤ Ta ≤ +65 °C (-4 ≤ Ta ≤ 149 °F)	-20°C ≤ Ta ≤ +65 °C (-4 ≤ Ta ≤ 149 °F)

\*1) Need specially designed control system

Control system	dT/dt cut-off ; 1 to 2 °C/min and -ΔV cut-off ; -ΔV per cell = 5 to 10 mV and T-control ; T= 60 °C and Rapid charger timer ; 1.5 h and Total timer ; 10 to 20 h (for trickle charge)
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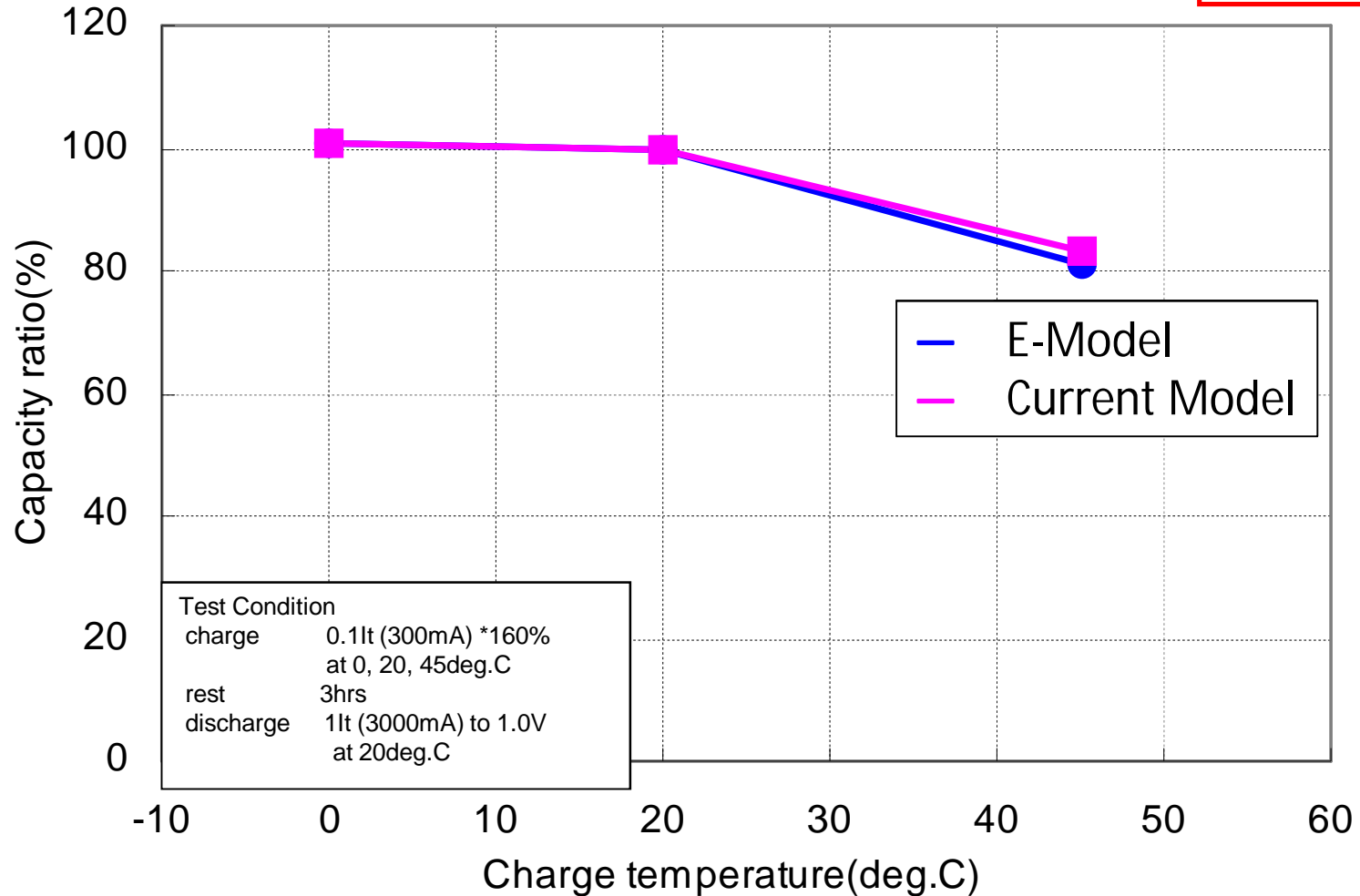
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# Charge Characteristics

# 0.1It Charge Characteristics

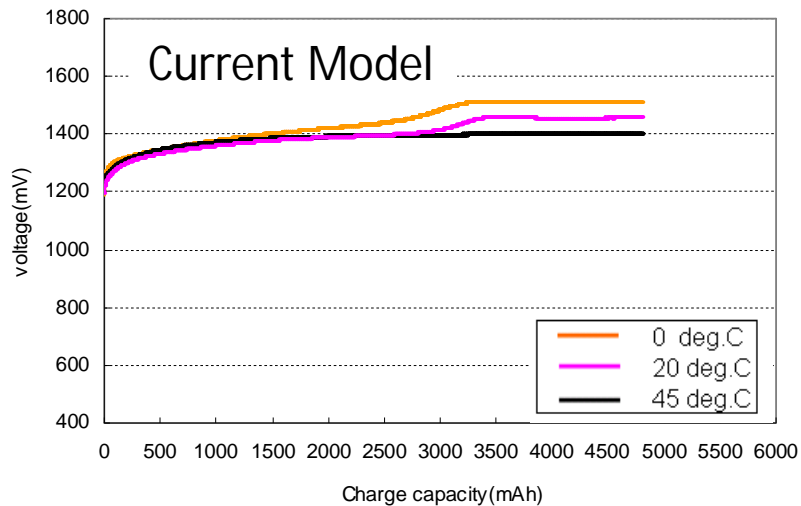
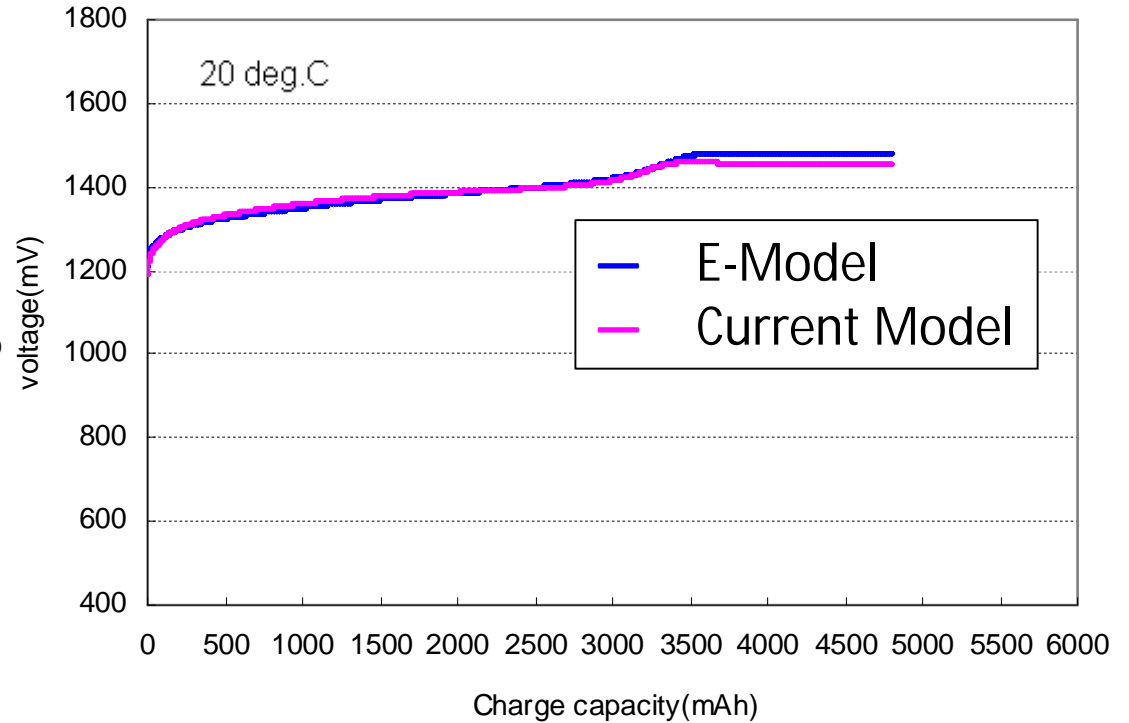
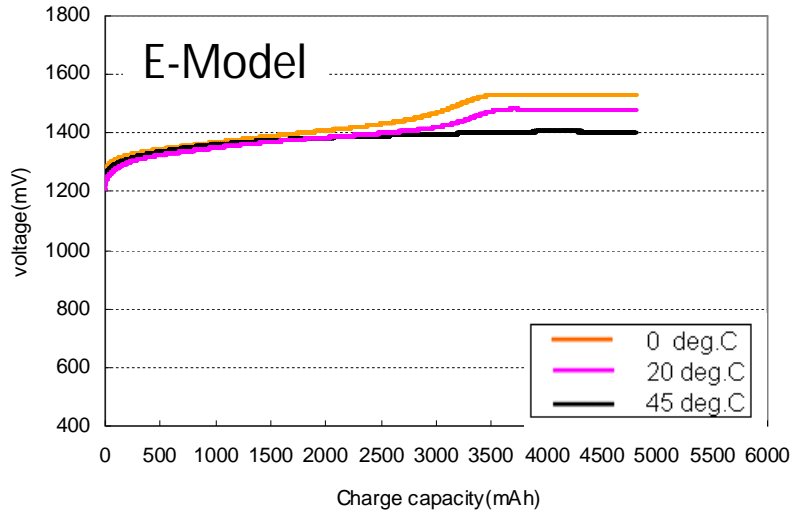
# 0.1It(300mA) Charge characteristics

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# 0.1It(300mA) Charge characteristics

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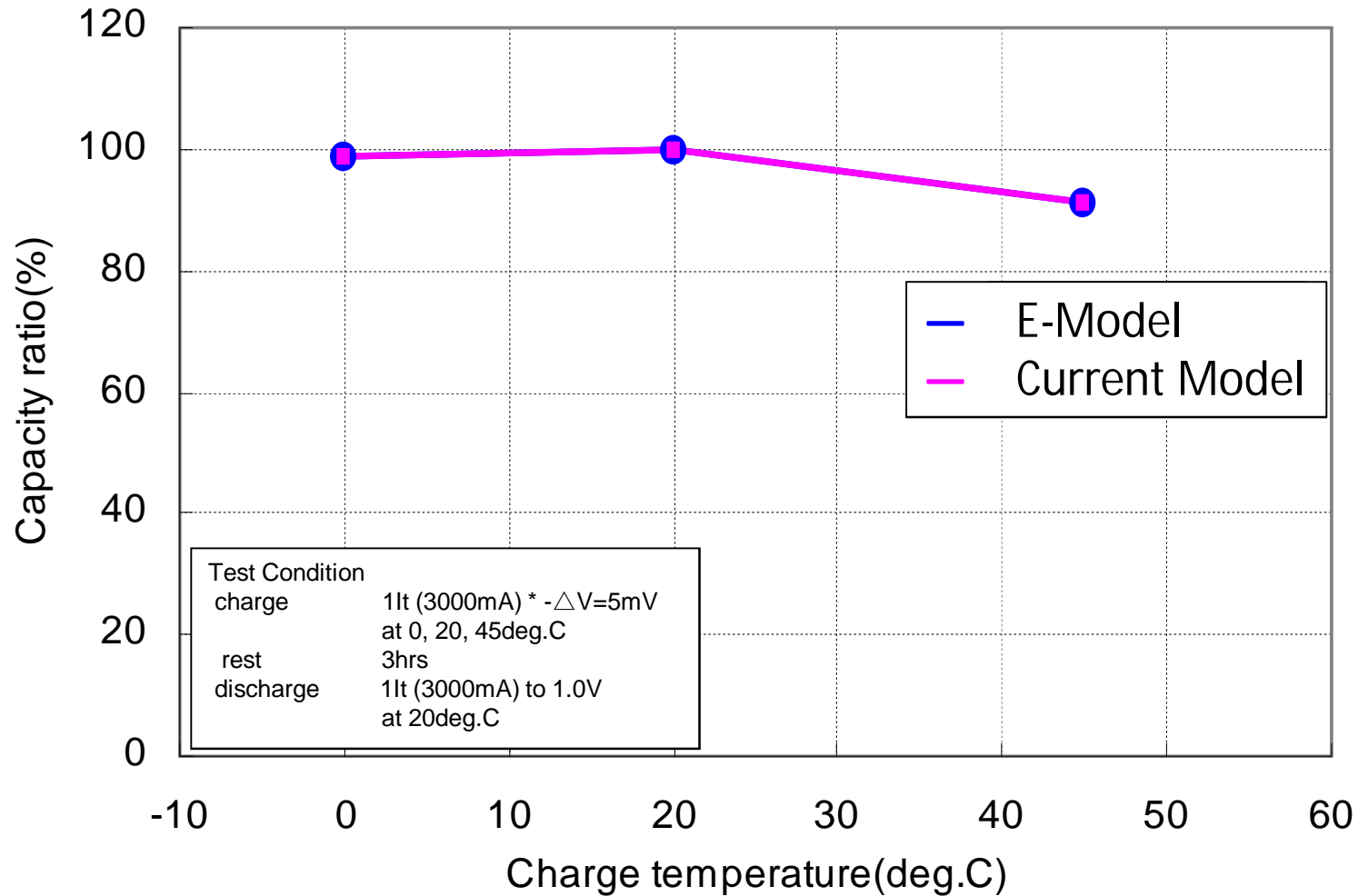


Test Condition	
charge	0.1It (300mA) * 160% at 0, 20, 45deg.C
rest	3hrs
discharge	1It (300mA) to 1.0V at 20deg.C

# 1It Charge Characteristics

# 1It(3000mA) Charge characteristics

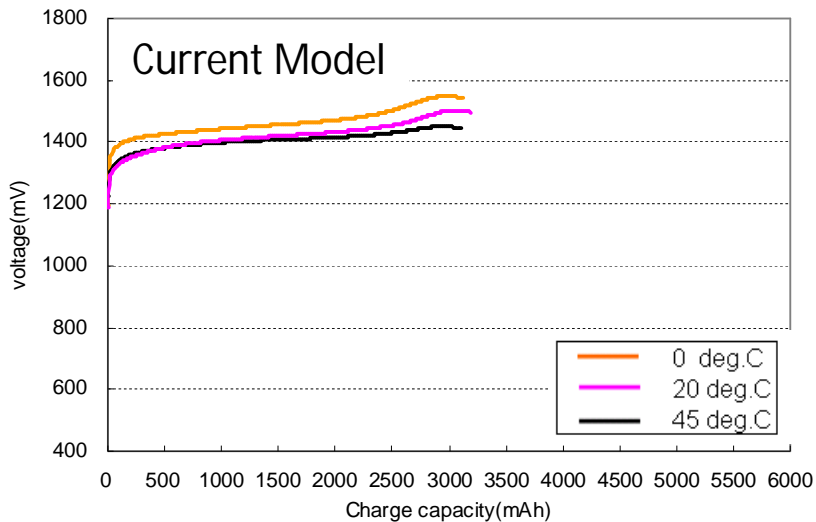
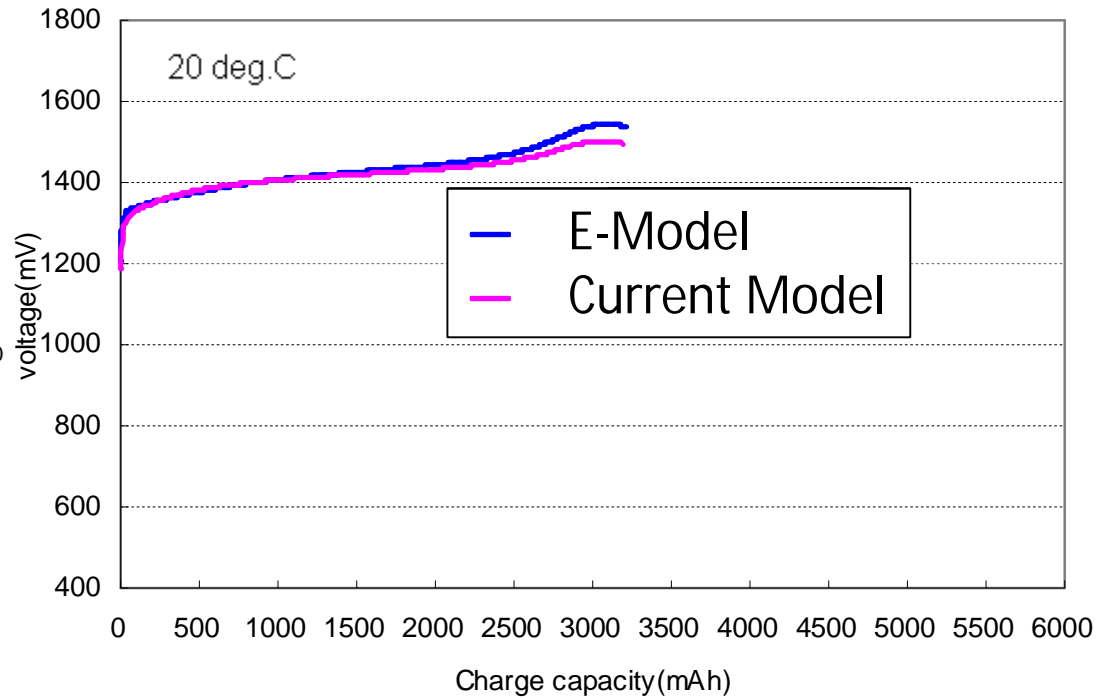
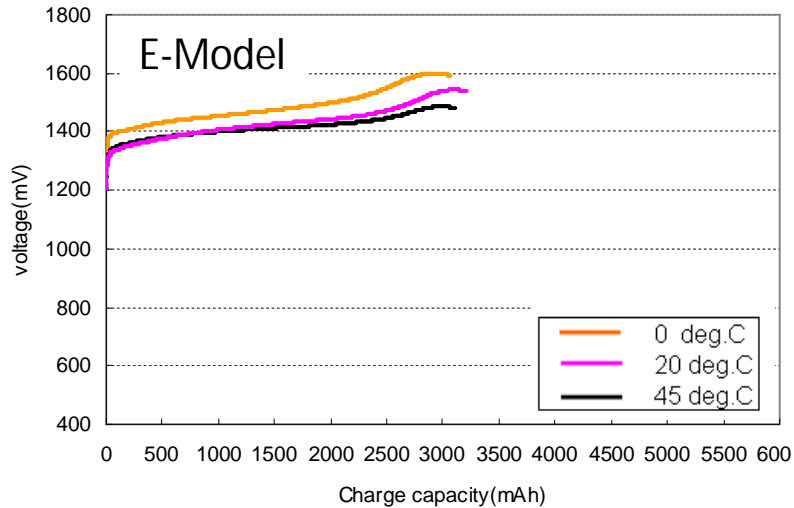
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# 1It(3000mA) Charge characteristics

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**Test Condition**

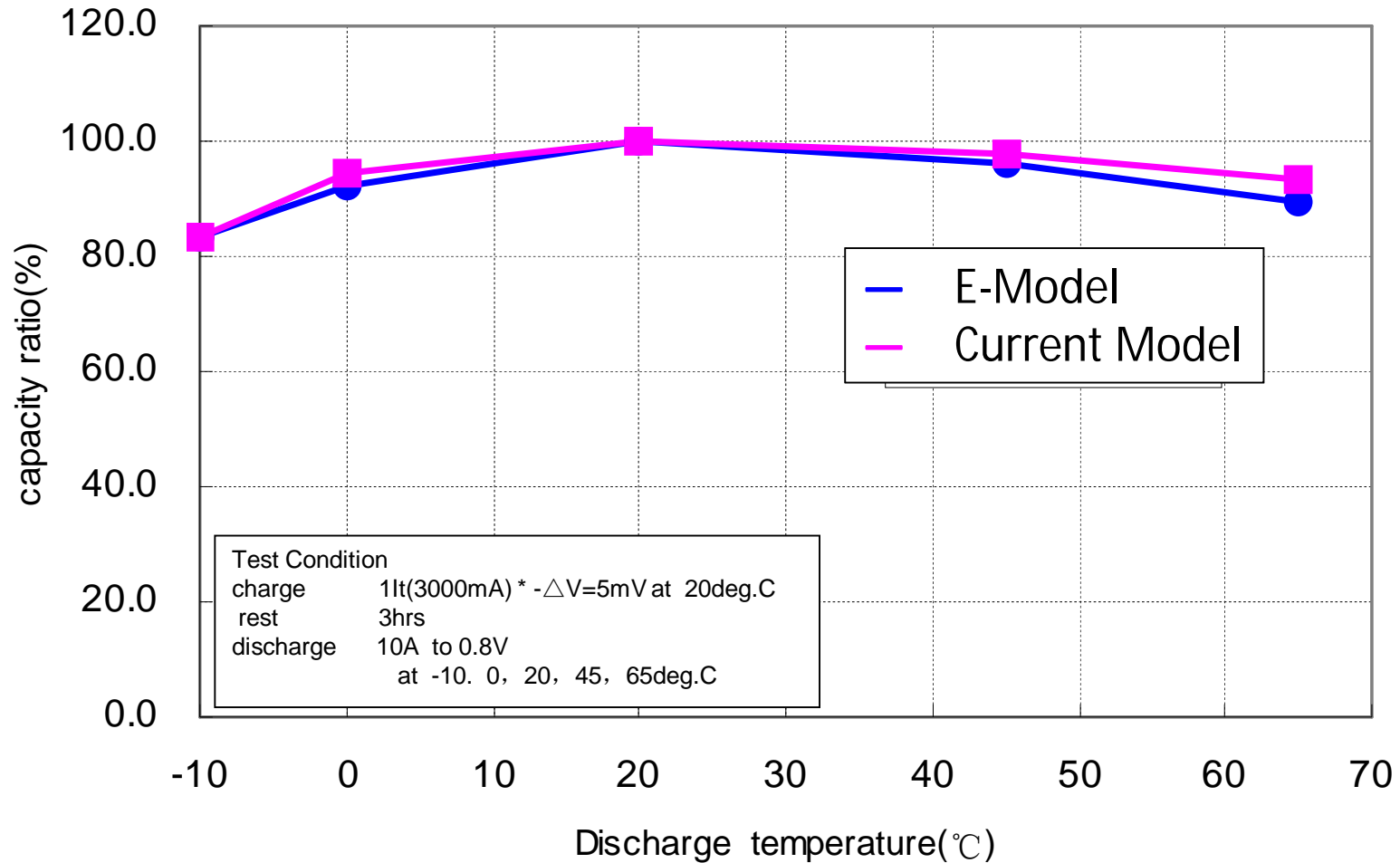
charge	1It (3000mA) * - $\Delta V=5mV$ at 0, 20, 45deg.C
rest	3hrs
discharge	1It (3000mA) to 1.0V at 20deg.C

# Discharge Characteristics

# 10A Discharge Temperature characteristics

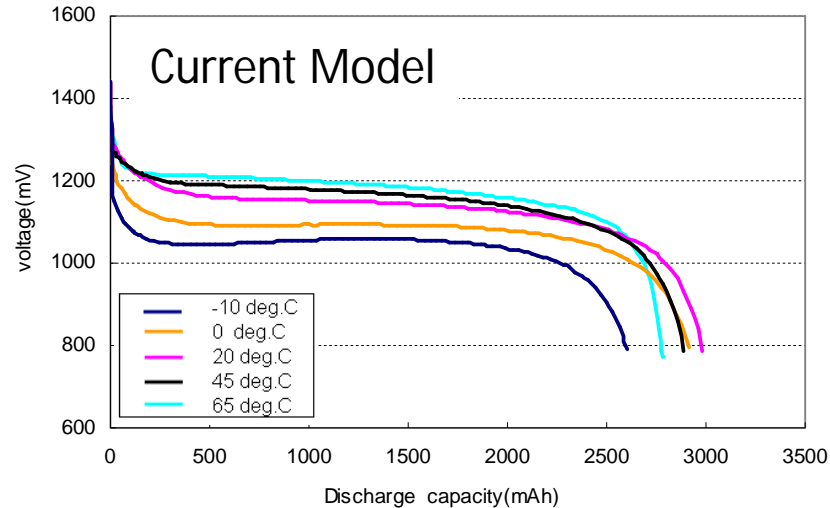
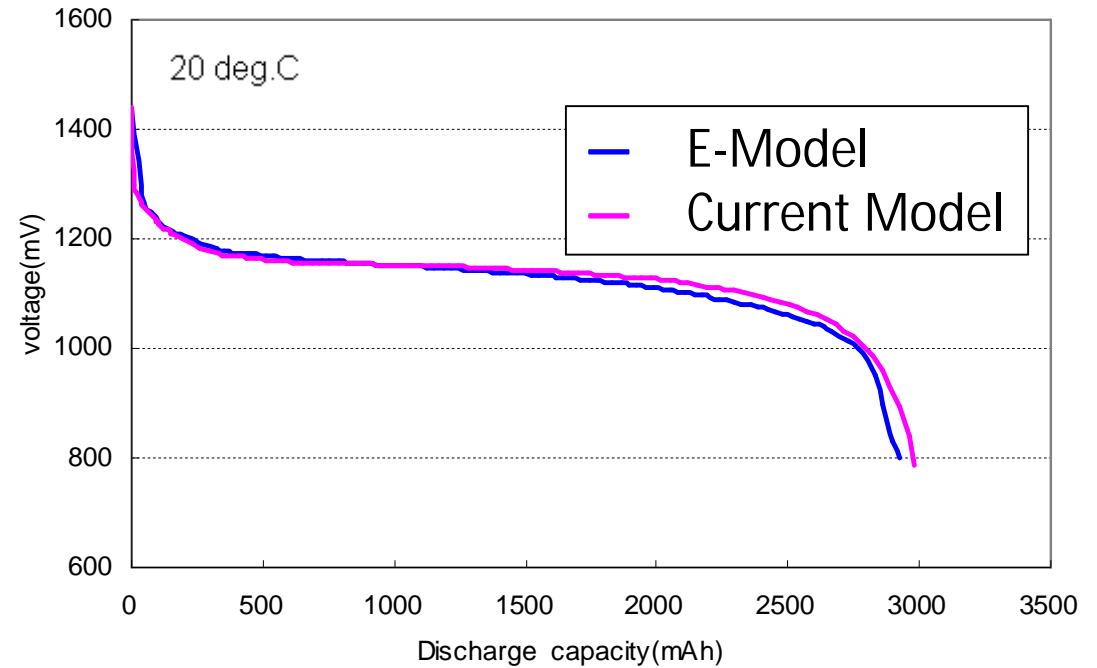
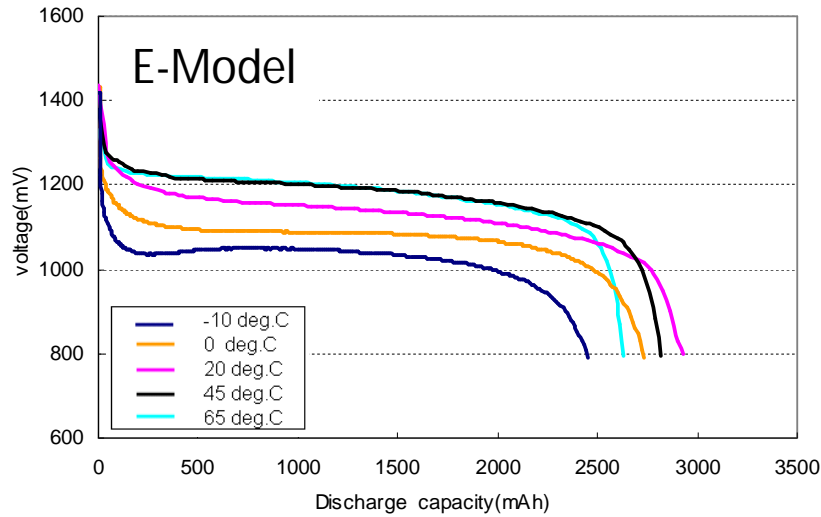
# 10A Discharge characteristics

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# 10A Discharge characteristics

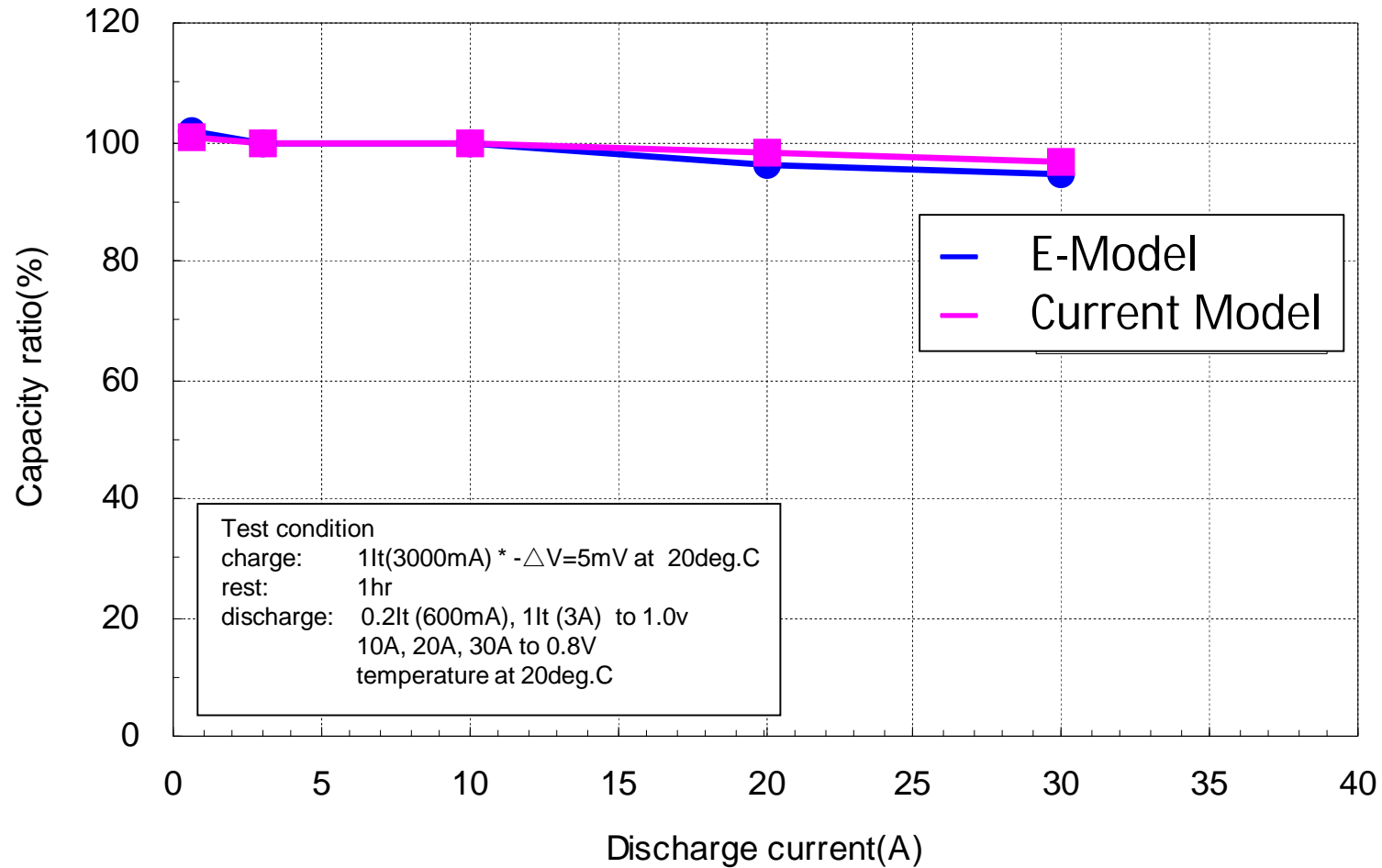
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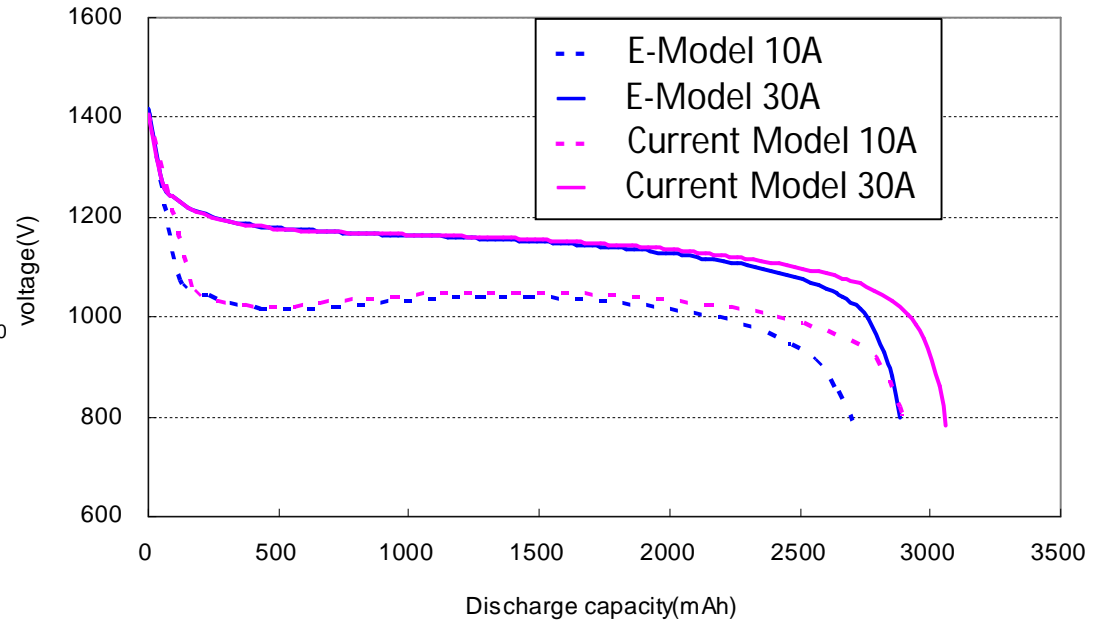
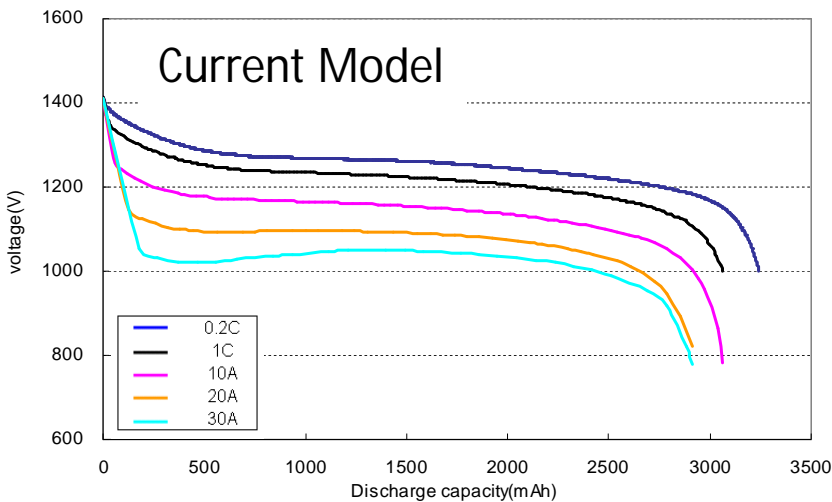
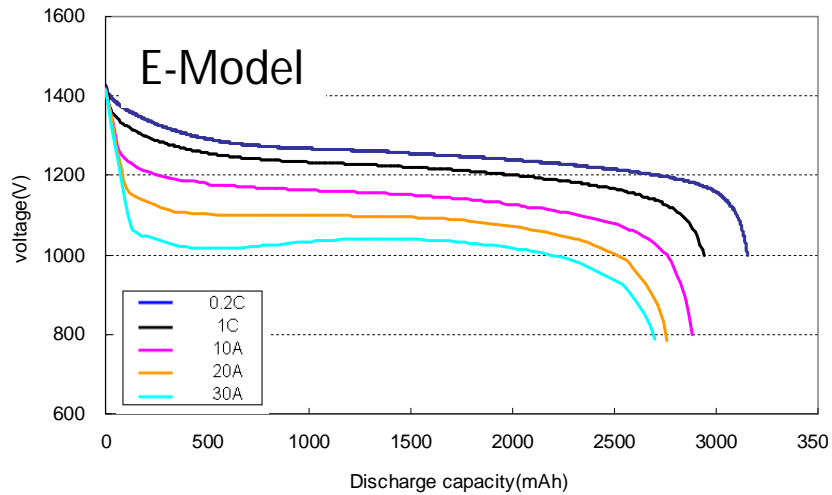
**Test Condition**  
 charge 1It(3000mA) \*  $-\Delta V=5mV$  at 20deg.C  
 rest 3hrs  
 discharge 10A to 0.8V  
 at -10, 0, 20, 45, 65deg.C

# Discharge Efficiency

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**Test condition**  
 charge: 1It(3000mA) \*  $-\Delta V=5mV$  at 20deg.C  
 rest: 1hr  
 discharge: 0.2It (600mA), 1It (3A) to 1.0v  
 10A, 20A, 30A to 0.8V  
 temperature at 20deg.C



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