

**2SC3441**

**FOR GENERAL PURPOSE HIGH CURRENT DRIVE APPLICATION  
SILICON NPN EPITAXIAL TYPE**

**DESCRIPTION**

Mitsubishi 2SC3441 is a super mini silicon NPN epitaxial type transistor designed with high collector current, high voltage.

Complementary with 2SA1366.

**FEATURE**

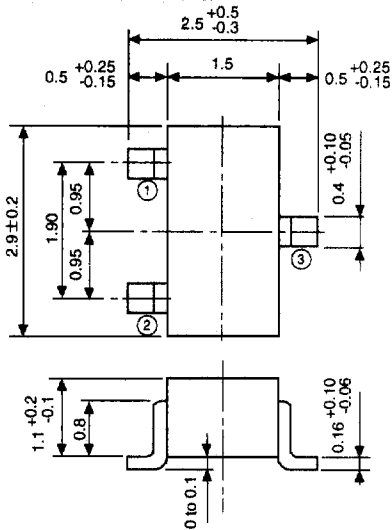
- High  $V_{CE0}$   $V_{CE0}=50V$
- Excellent linearity of DC forward current gain
- Super mini package for easy mounting
- High collector current  $I_{CM}=600mA$
- High gain band width product  $f_T=150MHz$  typ

**APPLICATION**

For switching application, for small type motor drive application.

**OUTLINE DRAWING**

Unit:mm



**TERMINAL CONNECTOR**

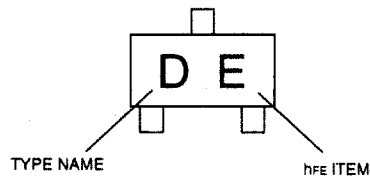
- ① : BASE
  - ② : EMITTER
  - ③ : COLLECTOR
- EIAJ : SC-59  
JEDEC : TO-236 resemblance

Note) The dimension without tolerance represent central value.

**MAXIMUM RATINGS (Ta=25°C)**

Symbol	Parameter	Ratings	Unit
$V_{CBO}$	Collector to Base voltage	55	V
$V_{EBO}$	Emitter to Base voltage	4	V
$V_{CEO}$	Collector to Emitter voltage	50	V
$I_{CM}$	Peak collector current	600	mA
$I_C$	Collector current	400	mA
$P_C$	Collector dissipation(Ta=25°C)	150	mW
$T_j$	Junction temperature	+125	°C
$T_{stg}$	Storage temperature	-55 to +125	°C

**MARKING**



**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

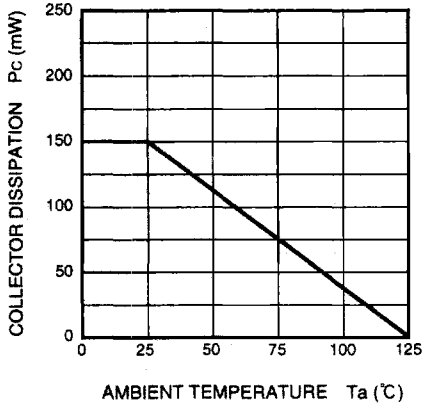
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)CBO}$	C to B break down voltage	$I_C=10 \mu A, I_E=0$	55			V
$V_{(BR)EBO}$	E to B break down voltage	$I_E=10 \mu A, I_C=0$	4			V
$V_{(BR)CEO}$	C to E break down voltage	$I_C=100 \mu A, R_{BE}=\infty$	50			V
$I_{CBO}$	Collector cut off current	$V_{CB}=25V, I_E=0$			0.5	$\mu A$
$I_{EBO}$	Emitter cut off current	$V_{EB}=2V, I_C=0$			0.5	$\mu A$
hFE *	DC forward current gain	$V_{CE}=4V, I_C=100mA$	90		500	—
$V_{CE(sat)}$	C to E saturation voltage	$I_C=200mA, I_B=10mA$		0.15	0.5	V
$f_T$	Gain band width product	$V_{CE}=6V, I_E=-10mA$		150		MHz

\* : It shows hFE classification in right table.

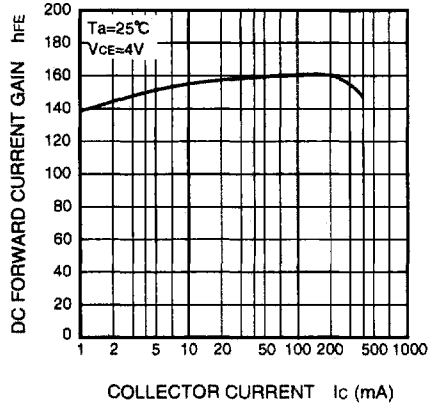
Marking	DD	DE	DF
hFE	90 to 180	150 to 300	250 to 500

**TYPICAL CHARACTERISTICS**

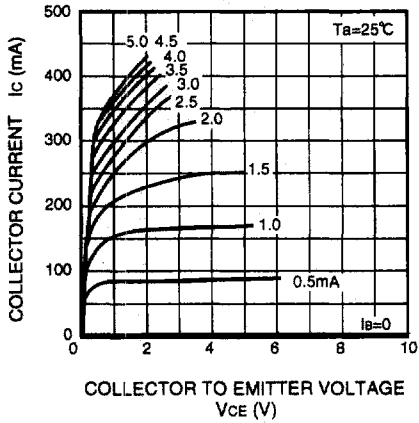
**COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE**



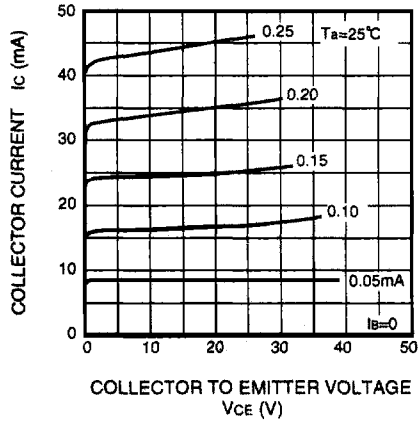
**DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT**



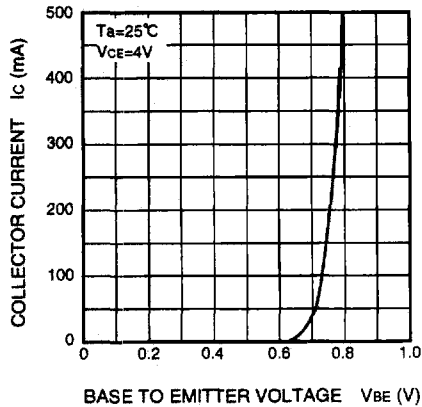
**COMMON EMITTER OUTPUT (1)**



**COMMON EMITTER OUTPUT (2)**



**COMMON EMITTER TRANSFER (1)**



**COMMON EMITTER TRANSFER (2)**

