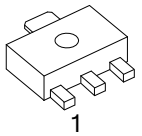
2SD2403

Preliminary | ***NPN SILICON TRANSISTOR***

LOW-FREQUENCY POWER AMPLIFIERS AND MID-SPEED SWITCHING



SOT-89

■ DESCRIPTION

The UTC **2SD2403** is a transistor featuring high current capacitance in small dimension. This transistor is ideal for DC/DC converters and motor drivers.

■ FEATURES

* High current capacitance
* Low collector saturation voltage

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SD2403L-AB3-R	2SD2403G-AB3-R	SOT-89	E	C	B	Tape Reel

Note: Pin assignment: E: Emitter C: Collector B: Base

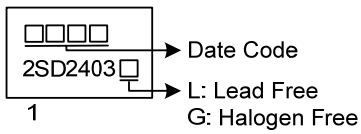
2SD2403G-AB3-R

(1)Packing Type — (1) R: Tape Reel

(2)Package Type — (2) AB3: SOT-89

(3)Green Package — (3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A = 25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	3	A
Collector Current (Pulse)	I_{CP}	5	A
Base Current	I_B	0.2	A
Base Current (Pulse)	I_{BP}	0.4	A
Collector Dissipation (Note 2)	P_C	2	W
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.
2. Mounted on ceramic board (16 cm^2 × 0.7 mm)

■ ELECTRICAL CHARACTERISTICS (T_A = 25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I_{CBO}	V_{CB}=80V, I_E=0			100	nA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=6.0V, I_C=0			100	nA
DC Current Gain	h_{FE1}	V_{CE}=2.0V, I_C=0.1A	80		250	
	h_{FE2}	V_{CE}=2.0V, I_C=1.0A	100		200	
DC Base Voltage	V_{BE}	V_{CE}=2.0V, I_C=0.1A	630		730	mV
Collector to Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=2.0A, I_B=0.1A			300	mV
		I_C=3.0A, I_B=0.15A			500	mV
Base to Emitter Saturation Voltage	$V_{BE(SAT)}$	I_C=2.0A, I_B=0.1A			1.2	V
Gain Bandwidth Product	f_T	V_{CE}=10V, I_E=-0.3A		130		MHz

■ CLASSIFICATION OF h_{FE1}

RANK	GX	GY	GZ
RANGE	100 ~ 200	160 ~ 320	200 ~ 400