

Silicon NPN Transistor

2SC2526 / C2526

160V/12A

DATASHEET

OEM – Fujitsu

Source: Fujitsu Databook 1983

FUJITSU
MICROELECTRONICS

2SC2525
2SC2526

**SILICON NPN RING EMITTER
TRANSISTORS 12 AMP, 120 & 160 VOLT**

DESCRIPTION

The 2SC2525/2SC2526 are especially well-suited for high frequency power amplifiers, audio power amplifiers, switching regulators and DC-DC converters.

PNP complements, 2SA1075/2SA1076, are available.

FEATURES

- High $f_T = 80$ MHz (typ)
- Ultra-fast switching speed
- Excellent Safe Operating Area
- Improved reverse Second-Breakdown Capability



ABSOLUTE MAXIMUM RATINGS

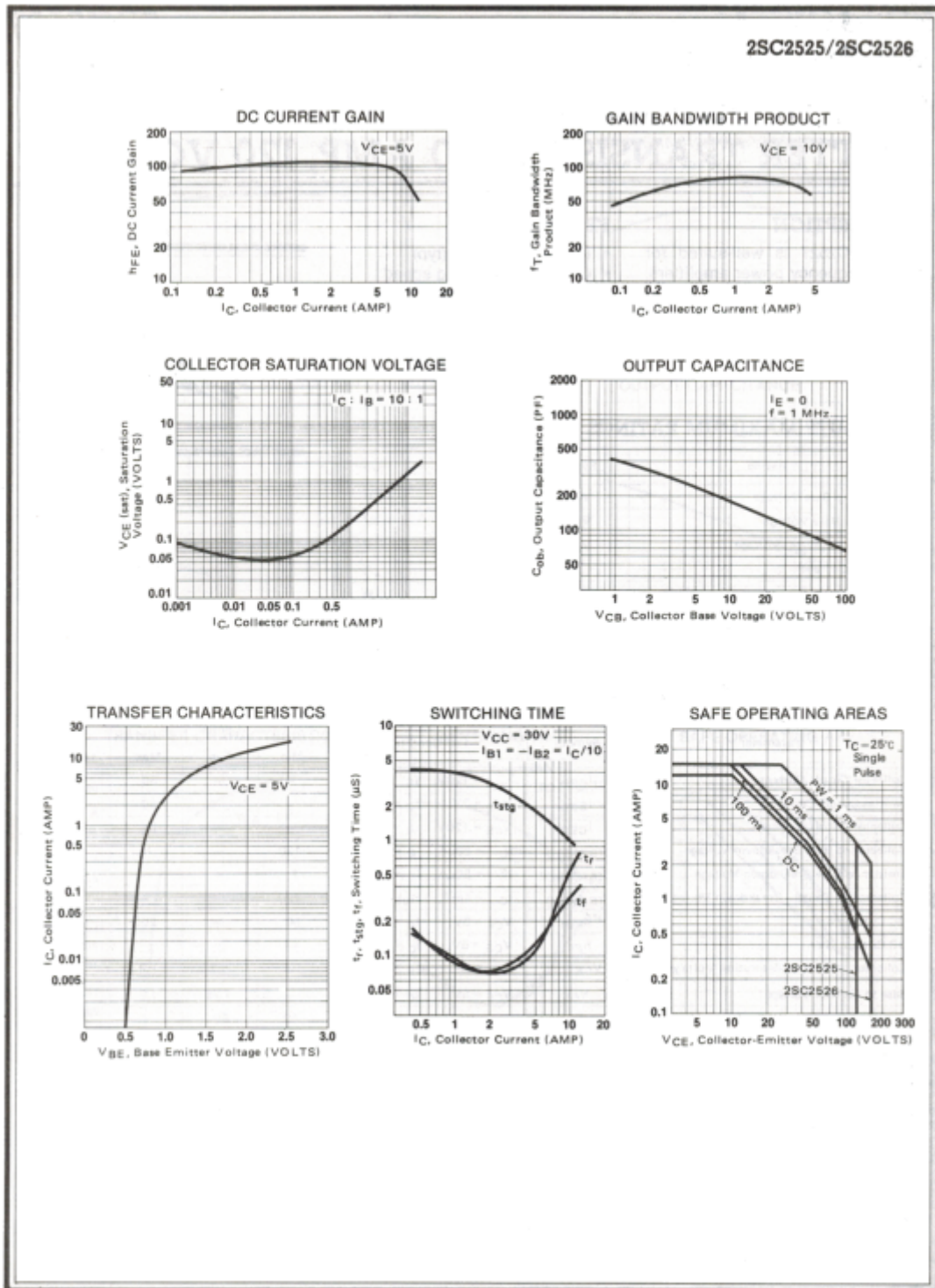
Rating	Symbol	Value		Unit
		2SC 2525	2SC 2526	
Collector to Base Voltage	V_{CBO}	120	160	V
Emitter to Base Voltage	V_{EBO}	7	7	V
Collector to Emitter Voltage	V_{CEO}	120	160	V
Collector Current	I_C	12	12	A
Collector Power Dissipation ($T_C = 25^\circ\text{C}$)	P_C	120	120	W
Junction Temperature	T_J	+150		$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 ~ +150		$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Limits						Unit	
			2SC 2525			2SC 2526				
			Min.	Typ.	Max.	Min.	Typ.	Max.		
Collector Cutoff Current	I_{CBO}	$V_{CB} = 120\text{V}/160\text{V}, I_E = 0$	—	—	50/—	—	—	—	—/50	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 7\text{V}, I_C = 0$	—	—	50	—	—	—	50	μA
Collector Cutoff Current	I_{CEO}	$V_{CE} = 120\text{V}/160\text{V}, R_{BE} = \infty$	—	—	1/—	—	—	—	—/1	mA
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 50\mu\text{A}, I_E = 0$	120	—	—	160	—	—	—	V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 50\mu\text{A}, I_C = 0$	7	—	—	7	—	—	—	V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	120	—	—	160	—	—	—	V
DC Current Gain	h_{FE1}	$V_{CE} = 5\text{V}, I_C = 1\text{A}$	60	—	200	60	—	200	—	
DC Current Gain	h_{FE2}	$V_{CE} = 5\text{V}, I_C = 7\text{A}$	40	—	—	40	—	—	—	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 5\text{A}, I_B = 0.5\text{A}$	—	0.7	1.8	—	0.7	1.8	—	V
Base to Emitter Voltage	V_{BE}	$V_{CE} = 5\text{V}, I_C = 5\text{A}$	—	1.25	1.7	—	1.25	1.7	—	V
Gain-Bandwidth Product	f_T	$V_{CE} = 10\text{V}, I_C = 1\text{A}, f = 10\text{MHz}$	50	80	—	50	80	—	—	MHz
Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	—	180	300	—	180	300	—	pF
Rise Time	t_r	$I_C = 7.5\text{A}, R_L = 4\Omega$ $I_{B1} = -I_{B2} = 0.75\text{A}$	—	0.3	—	—	0.3	—	—	μs
Storage Time	t_{stg}		—	1.3	—	—	1.3	—	—	μs
Fall Time	t_f		—	0.2	—	—	0.2	—	—	μs

* Pulsed: Pulse Width $\leq 300\mu\text{s}$
Duty Cycle $\leq 6\%$

PACKAGE TYPE: RM-60. See page 5-23 for dimensions.



TRANSISTOR PACKAGING INFORMATION

